

CHAMBERS'S

Journal

NOVEMBER
1950

HOW EDITH MCGILLCUDDY
SKIPPED SUNDAY-SCHOOL

JOHN STEINBECK

ENGLISH AND FOREIGN TAILS
H. S. L. DEWAR

THE GREATEST SHOW ON EARTH
RUPERT CROFT-COOKE

FLYING SAUCERS—FACT OR FICTION?
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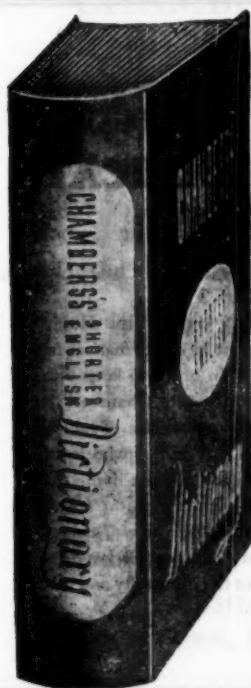
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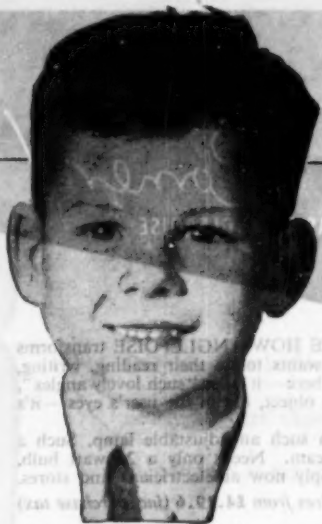
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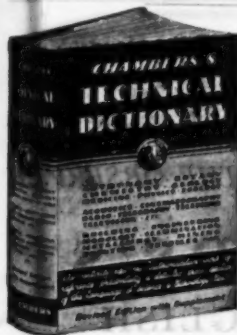
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How Edith McGillcuddy Skipped Sunday-school

JOHN STEINBECK

SALINAS was a dirty little California cow-town in 1879. There was a small and consistent vicious element; there was a large wavering element, likely to join the vicious element on Saturday night and go to church repentant on Sunday; and there was a small embattled good element—temperance people, stern people. Twenty saloons kept the town in ignorance and vice while five churches strove for devotion, temperance, and decency.

The McGillcuddys belonged by right, by race, and by inclination to the good element. Mr McGillcuddy passed the plate in the Methodist church, for the McGillcuddy family had joined the Methodists at a time when anyone who wasn't a Presbyterian was automatically an atheist or an idolater. Mrs McGillcuddy laboured at making the trousers that were sent twice a year to Africa and to the Sandwich Islands to curb the immorality of those backward peoples.

The little twelve-year-old Edith McGillcuddy, however, was a problem. Born to the good element, her instincts were bad in the matter of the company she kept. She could and did play decorously with the children of her own class but, left to her own devices, she invariably drifted to those dirty-faced children who, if they went to Sunday-school at all, worshipped sticks and stones in the basement of the Catholic church. This was a matter of alarm, and sometimes of anger, to Mr and Mrs McGillcuddy.

ONE Sunday morning in summer, when the sunshine lay sweetly on the weedy

lots and when the sloughs on the edge of town sent up an arrogant smell of moss and frogs and tules, Edith was given five cents and started on her way to Sunday-school. She had no intention of going anywhere else. Of course she rattled a stick against the fence-pickets as she went along, but it was a small clean stick. She walked carefully, to keep dust from flying on her blacking shoes, and she didn't climb a fence and cut across lots, because by so doing she might have torn her long, black stockings. She brought her blond braid round in front every now and then to see that the pink hair-ribbon was stiff and perfect.

Had she climbed the fence, none of this adventure would have happened. She walked around it instead, and, at the corner, sitting among the mallow weeds, was Susy Nugger, a little girl of Edith's age but not of her class. Susy's hair strung down over her eyes like the forelock of a pony. Her face was sticky and streaked where candy juice had collected dust; one puffed cheek was tight-stretched over a black all-day sucker. Her gingham dress was grey with dirt, and she wore neither shoes nor stockings. Susy reclined among the yellowing mallow weeds and looked at the light summer sky. Occasionally she removed the sucker to see how it was getting along.

Edith didn't see Susy until she came right abreast and until Susy spoke. 'Where you going?'

Edith knew she shouldn't stop, but she did. 'Going to Sunday-school. What are you doing?'

'Sucking on a sucker, and I bet you wish

CHAMBERS'S JOURNAL

you had one,' said Susy. Her words were mushy because of the sucker. The two girls eyed each other belligerently.

'Well, I guess you better go on,' said Susy. 'I'm going to a free funeral.' She watched with satisfaction the interest rising in Edith's face, and she saw with malice that Edith was unconsciously picking her hair-ribbon.

'What's a free funeral?' Edith demanded. 'They're all free. They don't even pass the plate at funerals. I been to lots of them.'

Susy plucked some little cheeses from the mallow weeds and put them in her mouth on top of the sucker. 'I bet you never went to a funeral that had a free train-ride to it.'

Edith's hair-ribbon suffered. 'Train-ride to where?'

'To Monterey, that's where—and back too. And it don't cost a cent to mourners or friends of the deceased.'

'I bet you aren't a mourner or a friend,' said Edith.

Susy took the paling sucker from her mouth and regarded it maddeningly. 'Well, if I cry a little ever 'body 'll think I am.' Edith scuffed one toe in the dirt, forgetting the new blacking. 'Whyn't you come along?' Susy suggested to her.

'No. I got to go to Sunday-school. Got the nickel for the plate right here.'

'Whyn't you wait until next Sunday and put two nickels in? They don't care just as long as they get it some time.'

'God might not like it,' said the weakening Edith.

Susy guilefully pressed on. Nice-people she might not be, but logician she was. 'When you pray for something do you get it right off? No. Sometimes you wait a long time for it, and sometimes you don't get it at all. I prayed for about a million things and I never even got a smell of them. Whyn't you let God wait a week for his nickel?'

This was wrong, and Edith knew it was terribly wrong, but Susy was powerful and subtle. Out of her gingham pocket she drew a huge all-day sucker, scarlet and shiny. 'I was saving this red one for the funeral. It's a hot one.'

Edith gave up. 'The red ones always are hot,' she said kindly.

'Well, this one is the hottest you ever had. I tasted it. It'll burn the mouth right out of you. I ate the black one first because I like the red ones best, but you can have it.'

Edith accepted the sucker and the bribe.

'What train we going on—the big train?'

'Of course not,' said Susy. 'We're going on the narra-gauge. Not just one car either. The Alvarez family rented the whole train. They're going to bury Tonio Alvarez in Monterey.'

Before she put the big sucker in her mouth Edith rubbed it a little on her sleeve to prove she was still dainty. 'I guess we better be going to the depot and get a seat,' she said.

THE funeral train was festive in a mournful kind of way. First was the little engine rolling black smoke out of its head and puffing steam out of its belly. After that was the flatcar carrying the coffin on two sawhorses. Flowers and pillow-pieces were piled all over the coffin car and no one sat on it. After that, again, came four more flatcars with benches for the mourners. Black crepe hung from the funnel of the engine and lined the sides of the cars. By special arrangement with the company the train bell tolled mournfully.

Edith and Susy got there just in time. The coffin was in place and the benches were nearly full of mourners. On the first two cars ladies and gentlemen in black formal clothes sat stiffly, ready handkerchiefs and smelling-salts clutched in their hands. They had earlier got the churching over with. The priest and the family sat on the first car.

The last two cars were crowded with less formal people and the aisles between the benches were cluttered with lunch-baskets and paper-bags and cans of milk. Edith saw with relief that she and Susy were not the only ones who were combining a funeral and a free train-ride—for there were courting couples whose self-imposed gravity was constantly racked with giggles; there were hair-trigger children who needed only a leader or an incident to break into happy riot.

The engine bell tolled mournfully on and the steam from the stomach of the engine hissed. Susy and Edith squeezed in and sat on the floor between two rows of benches. Already Edith's face was streaked with red from the sucker; her hair-ribbon was a ruin, and in crawling up on the flatcar she had torn the knee out of one of her long-ribbed stockings.

There came a pause to the tolling bell. Then the whistle screamed. The wheels turned and the little train gathered speed. It moved out of town and into the yellow grainfields. The wind rushed by. Some of the smaller bunches

HOW EDITH MCGILLCUDDY SKIPPED SUNDAY-SCHOOL

of flowers arose into the air and sailed away into the hayfields. Women gathered their dresses about their ankles and pinned their veils tight round their throats. The priest hugged his surplice close. Two boys were fighting already on the last car.

Through the ripening country the train tore at twenty miles an hour. The sparrow-hawks flew up from the squirrel-holes, and the black-birds soared away in flocks, like wind-blown black curtains. The wind was warm, and it was perfumed with the funeral flowers and with the black smoke from the engine. The sun shone brilliantly down. The little train raced on through the hayfields.

Now a few people, made hungry by all the excitement, began to open the lunch-baskets. Ladies pushed their veils up to take each bite of sandwich. The children in the last car threw orange peels and apple cores at one another.

The train left the yellow fields and entered the bleak country where the earth is dark sand and where even the sagebrush grows small and black. And then the round, sparkling bosom of Monterey Bay suddenly came into sight.

All this time the train bell tolled. Four men had climbed forward to the coffin car to hold down the larger and more expensive bunches of flowers and the symbolic funeral pieces, such as pillows and flower crosses and broad-sides of red geraniums with lambs in white verbenas. A group of small boys on the last car began to snatch caps and throw them from the train.

It is remarkable that during the whole trip no one fell off the train. Nervous mothers spoke of it afterward, spoke of it as a provision of Providence, probably set in motion by the sacred nature of the journey. Not only did no one fall off, but no one was hurt in any way. When the train pulled into the depot at Monterey every passenger was safe. Ladies' clothes were a bit blown, but since their dresses were black they didn't show the engine-smoke at all.

At the station in Monterey a crowd was waiting, for Monterey was the home seat of the Alvarez family, and the big granite tomb was in the Monterey cemetery. A hearse was waiting and a few surreys for the immediate family. The rest of the people formed in a long line to walk to the graveyard.

Just as they were about to move off, the brakeman shouted out: 'The train will start

back at four o'clock, and it won't wait for nothing.'

THE granite vault was open, its bronze doors wide. The crowd of people stood in a big half-circle facing the entrance, and the coffin was in front of the door. The people had put their lunch-baskets behind tombstones, out of the hot sun. Edith was alone now, for the treacherous Susy had allied herself with a little girl who carried a big lunch-pail. Edith had seen them walking in the procession, Susy helping to carry the pail.

And now the grave-service was going on, and Edith stood between two big men. She could see the inside of the vault with the inscribed squares where other coffins lay. She felt deserted and alone. Edith began to sniffle, her eyes dripped—suddenly she sobbed aloud.

One of the big men looked down at her. 'Who is this?' he asked of the big man on the other side. 'I don't recognise her.'

The other man glanced down at her and shrugged his shoulders. 'One of 'Tonio's bastards, I guess. The country's full of them.'

Edith stopped crying. She didn't know what a bastard was, but she was glad to be one if it gave her an official position at the funeral. She watched while the coffin was carried into the vault and slid into the little black cave that was ready for it. Then the tomb clanged shut and the people began to disperse, some to eat their lunches in the cemetery and others to search out the shade of oak-trees on the hill behind the graveyard.

The crickets were singing in the tall grass and the bay breeze blew in over the graves. Edith looked for Susy and found her with her new friend. They were sitting on a cement slab eating thick sandwiches.

Susy called out ungraciously: 'Go away! There's just enough for Ella and me. Huh, Ella? Ella's my friend. Huh, Ella? Ella knows me.'

EDITH turned disconsolately away. A reasonably well-fed McGillcuddy wouldn't think of eating thick sandwiches with Susys and Ellas, but Edith was growing hungry. Her insides were hollow too from the dry scanty wind. Nearly all the people were gone. Edith noticed that the wind brought with it a delicious odour. There was kelp in it and crabs and salt and clean damp sand; but it was a lonely

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smell too. As Edith walked down toward the bay she thought of Salinas. Were her people looking for her body down wells or in the quicksand holes of the Salinas River? For her family probably thought Edith was dead. Her eyes dampened. She thought how it would be to be dead, not in a dry comfortable coffin like Tonio Alvarez, but floating in the stale water of an old well, or far down under the oozy quicksand. She felt very sad as she walked through the sunny streets until she came to the beach.

The little waves were lipping on the sand. A few row-boats lay bottom up on the beach. A wavy line of sea-weeds left by the high-tide cut the white beach in half. Edith walked thoughtfully to one of the overturned boats and sat down on it.

There came a scrabbling sound from under the boat. Edith got down on her knees and looked underneath. She leaped back quickly, for a dirty little face was peering out at her. The face and a frowsy, frizzled head came worming out from under the boat, and a red dress followed, and long, skinny bare legs. It was a plain ragamuffin. Compared to this little girl, Susy was as elevated as Edith was above Susy, for this little spectre of dirt and low-classness not only had a dirty face and uncombed hair—what was infinitely worse, she had on no pants under the dress, and she had not wiped her nose for a long time. She was on her knees now, clear of the boat, and she stared at Edith with animal eyes.

'What you doing under that boat?' Edith demanded.

The ragamuffin spoke in a hoarse, cracked voice. 'Nothing. I was just laying there. What's it your business?'

'What's your name?' Edith continued sternly. Her tone cowed the wild girl.

'Name's Lizzie. And I never seen you before, neither.'

'Of course you didn't. I came to the funeral from Salinas.'

'Oh! That old funeral. I could of went to that. But I didn't want to.'

'Sure, you could of walked to it,' Edith agreed sarcastically, 'but you couldn't of come over to it from Salinas on a train.'

The shot was deep. Lizzie changed the subject. 'There's a lady in the town smokes cigarettes.'

'I don't believe it,' Edith said coldly.

A look of jeering triumph came on Lizzie's face. 'Ho! You don't believe it, Miss

Smarty-face. Well, I can show her to you with a cigarette right in her mouth.'

'I don't believe it,' Edith said again, but there was no conviction in her tone. She knew, of course, that it was impossible, but Lizzie's manner wavered the impossibility.

'You can come with me and I'll show you,' Lizzie continued. 'And we can make a nickel too.'

'How?'

'Well, this lady that smokes and a man with long hair live up to the Frenchman's. They buy ever'thing. They bought abalone shells even, and they could of picked up all they wanted. Ever'body sells things to 'em. I bet they'd even buy dirt for a nickel. They aren't sharp; that's what my pa says.'

'What are we going to sell them?' Edith asked.

'Huckleb'ries,' said Lizzie. 'You come with me to Huckleb'rry Hill and help pick a bucket of berries, and we'll take them down, and the man with long hair'll give us a nickel for them, and you can see the lady smoking, as I said.'

'Is the man with long hair an Indian?'

'I don't think so. He's just kind of crazy. That's what my pa says.'

'Is he scary?'

'No, he ain't scary. He treats you nice and gives you a nickel for ever'thing.'

A WARMTH of yellow was in the afternoon sun as the two little girls climbed the hill among the tall straight pines. The straight shadows lay on the needle-beds, and the little crisp dead pine-twigs snapped under the girls' feet. Fallen pine-cones littered the ground. Lizzie showed Edith how to bruise the yerba buena under the heel so that the sweet smell of it arose into the air. They tore their way through a blackberry thicket and the thorns didn't hurt Lizzie's bare feet. At last they came to the open slope where the neat huckleberry bushes grew, and the tips of the twigs were loaded with black fruit and the leaves of the bushes were as shiny as mirrors.

'There,' said Lizzie. 'Now we'll pick them. Don't mind if you get leaves in the bucket, because those people will buy anything.'

Edith watched while her new friend filled half the bucket with pure huckleberry leaves. That helped to make the bucket fill up with berries more quickly. It took very little time to make the top brim with the black, shiny

HOW EDITH MCGILLCUDDY SKIPPED SUNDAY-SCHOOL

berries. The girls' hands were purple-black with the fruit-juice.

THE sun was even yellower when they went back down the hill and the wind came swishing up from the bay. The little fishing-boats with sails were spanking home in the afternoon.

'Suppose they aren't home?' Edith suggested. 'The train's going back to Salinas at four o'clock.'

'Don't you worry. They'll be sitting right out in the yard on the ground, and the lady'll be smoking.'

They trudged through the dirt streets of Monterey. A few horsemen idled about and a few rigs were tied to the sidewalk hitching-posts. A barouche passed, bearing a sad lady in black satin, and the polished spokes of the wheels flittered in the sunshine. At last Edith and Lizzie came to a large white adobe house. There were two storeys to the house and the curtains were red. Beside the house there was a high wall of limestones set in mud. Little eaves perched on top of the wall to keep the rain from washing the mud away. A heavy two-leaved gate was in the wall, and in the middle of the gate was a big iron ring. Over the wall the tops of fresh green trees showed and the tops of ivy.

Lizzie whispered hoarsely, 'They'll be sitting right on the ground. They always are.'

'On the ground? No chairs?'

'Right hell on the ground,' said Lizzie, 'and a tablecloth on the ground too.'

'I don't believe it,' said Edith.

'Well, you watch then.'

Lizzie picked up a stone from the ground and hammered on the gate. A sharp voice called: 'Pull on the ring if you want to get in.' Lizzie reached and gave the ring a tug.

The gateposts must have leaned inward, but, without help, the heavy leaves folded open by themselves. Edith's eyes widened; her mouth dropped open; her hands hid in the folds of her ruined dress. It was just as Lizzie had said it would be. The yard was flagged with smooth limestones. Nice trees lined the walls. Toward the back of the yard a white cloth was on the ground, and a teapot and cups. On one side of the cloth sat a lady in a white dress smoking a cigarette, and on the other side squatted a long-haired young man with a lean, sick face and eyes shining with fever. A smile came on the young man's face, but the lady

did not change her expression; she just looked blankly at the two little girls standing in the open gateway. Edith and Lizzie stood self-conscious and clumsy. When the young man spoke, some kind of a memory rippled in Edith's head.

'What is it you want, girls?'

Lizzie's hoarse, cracked voice came explosively. 'Huckleb'ries,' she croaked. 'Nice fresh huckleb'ries. Fi' cents a bucket.'

The young man put a lean hand in his pocket and brought out a coin. Edith and Lizzie marched stiffly forward. Lizzie held out the bucket of berries and took the coin in her purple paw. Then, without warning, she whirled and ran like a rabbit out of the gate. It was so silent in the yard that Edith could hear the retreating footsteps for a time after the disappearance of her friend.

Edith turned slowly to the people. The lady's face had not changed. A little spurt of smoke escaped from her nose and writhed in her dark hair. The young man smiled ruefully. 'She did you, didn't she?' he observed.

Then Edith's anger arose. 'That's not all,' she said sharply. 'The bucket's more than half leaves.'

The long-haired man smiled on. 'It always is,' he said gently. 'One must take that into consideration.'

'You knew it?' Edith demanded.

'Oh gracious, yes! But,' he said softly, 'I didn't care.'

The woman on the other side of the cloth spoke for the first time. 'They just take you for a fool. They make a fool of you.'

The man pinched the tip of his nose. 'It's not bad sport to be a fool,' he said, '—for five cents.' He faced Edith again. 'Will you have a cup of tea?'

She looked yearningly at the fat brown teapot on the ground and at the fat brown sugar-bowl and cream-pitcher. 'I'm not allowed to have tea. My mother won't let me.'

The man bowed in the face of the law.

Edith continued quickly: 'But if it's half milk, that's cambric tea.'

'Certainly it is,' he said sharply. 'Certainly it is.'

'And I can have that.'

He poured it for her and held out the brown sugar-bowl. Edith sat down on the ground. The woman still gazed at her, but Edith's courage came back. Edith was what she was. 'You aren't an Indian, I guess,' she observed.

'No. I'm really not.'

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'Because,' she went on, 'you talk pretty near like Granma McGillcuddy.'

'You have a Granma McGillcuddy?' the young man cried.

'My own name is Edith McGillcuddy and I live in Salinas and I came on a train to the free funeral.'

The man turned to the woman. 'Take note of this,' he said happily. 'There is more in a line than I could do. There's condensation for you, and history, and, if you were so minded, philosophy.'

The woman looked slightly annoyed.

Edith sipped her cambric tea and continued, 'I should have gone to Sunday-school.'

'You should, all right,' agreed the man. 'Salinas is twenty miles away, isn't it?'

'Yes, and it's a nice town, but there's no ocean beside it and it's got twenty saloons.' Edith nodded dismally to show how bad the last fact was.

'The McGillcuddys of Salinas,' he murmured, 'and you came in a train to the free—look, what's a free funeral?'

At that moment a high scream filled the air. Edith grew tense. The scream was repeated.

'I know,' she cried. 'It's the train going back.' She ran wildly out through the big gates and kited down the hill. The train was just beginning to move when she climbed aboard.

And that was how Edith McGillcuddy met Robert Louis Stevenson.

AN old, old lady told me this story. It happened to her when she was a little girl, and she remembered the details very well. I changed the names, of course. She was a Gilfilan, and we (that is, my father and mother and my grandparents and my sister and I) have known her all our lives, and it is a true story. After I had written it, I sent her a copy, and she wrote to me saying: 'There are three terrible inaccuracies, but how could you know that? There were,' she wrote, 'no black stockings in those days—they were striped, there were no nickels, and, more's the pity, no all-day suckers. Otherwise,' she wrote, 'that is the way it happened.' And she signed it

Affectionately
Edith Wagner.

The Inland Storm

*The wind is in the boughs to-night;
Against the sky a lace of leaves
Is fluttered in the dying light
And all the woodland moans and heaves
As though it were a sea that grieves.*

*As though it were a sea that cried
Against its limit and in vain,
There's riot in the tall green tide
Of leaves that surge and lapse again
Or drop like spindrift on the plain.*

*They drop like spindrift on the croft,
Where huddled horses mope and neigh
To hear the surgy sound aloft,
With manes that stream as cordage may
Above the rollers and the spray—*

*Above the rollers and the spume
When sudden rockets leap to light
From broken ships that meet their doom
Without an answering sail in sight.
The wind is in the boughs to-night.*

WILFRID THORLEY.

Milk on Your Doorstep

DAVID BOYCE

HIGH on the hills the winter sun is sinking behind the woods. A mild winter day is passing and the cows are ambling towards the cowshed. They are returning from their winter pastures near the homestead. In the meadows the grass has been cut by the October frosts, and these grazing-fields are now resting through the long winter. When the sun regains its warmth and light, new lush growth will recarpet the meadows. Then will the cows wander over them again. There are no days of ease for the dairy-farmer, but summer brings an easier time so far as feeding is concerned. Fresh grass rich with clover can be eaten at the cows' leisure, and this, with a ration of protein cattle-cake, will suffice.

In winter, however, the farmer must work through the short day in mud, rain, ice, and snow to provide milk for the millions. These cows now waiting at the gate have to be fed on crops grown through the summer season. From November to April there is but little grass for them to graze upon, and what there is of little food-value. Their main food is fed to them in their stalls, and that is why they now stand with attentive eye and ear, almost staring at the cowshed behind the five-barred gate. They are of various ages, as is shown by the rings around their horns. A new ring forms each time the animal has a calf, which is about once a year.

A clatter of pails may be heard above the lowing of the cows, and men may be seen passing to and fro. There are rations of cattle-cake to be shot into each trough, according to the needs of each animal. A high-yielding cow will receive more than one of lower productivity. If a sufficient ration is not given, then the cow will go out of condition, for it will continue to give the same supply of milk. Farmers call it 'giving the milk off their backs.'

Hay in huge quantities has been carried along the hay-walk so that the cows can be given enough to last through the long night. Straw is at hand for placing in each stall to provide bedding for the night. Water is always on tap. The cow muzzles into its drinking-bowl and water flows, the supply ceasing as the cow lifts her head. The cowshed receives its final flushing from the hose and everything is ready for the cows to enter. With a call peculiar to cowmen, the gate is opened, and each animal hurries to its own stall.

All the cows on this farm are Friesians—lovely black-and-white beasts weighing something over half-a-ton. Their annual yield of milk is about four tons.

The cows enter their stalls and begin munching their cake with contentment. Whilst this is happening, a cowman passes quietly along the line of animals, slipping a chain over each neck in turn. Every animal is cleaned from mud picked up in the field. Milking-time has arrived.

IN the distance, an engine starts up with staccato note—the milking-machine is ready, and the thirty cows will soon be dealt with. Passing along to where the sound originates, you catch sight of the dairy across the yard. In a small outhouse is the pumping-machine, which is connected to each cowstall by a pipe running the length of the cowshed. It is from this pipe that each machine gets its power.

In the dairy, all is clean. White paint is everywhere. The floor reflects the overhead electric-light, for the dairy, too, has just been flushed.

From the dairy window little can be seen in the afternoon mists. Down in the valley the local milk-train can be glimpsed on its

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way to the railhead. One checks the amount of milk in the train—there are four, no five, glass-lined tanks, each holding 3000 gallons, which will be attached to a long-distance train.

This milk was collected at ten o'clock this morning by the depot lorry. From farm to farm it trundled down narrow lanes that other traffic avoids, as their negotiation requires all of a driver's skill, then on to the depot where the milk is taken for treatment, afterwards being pumped into the waiting wagons. Each and every day, rain or shine, this routine is followed. There are no holidays, because you need your supply weekdays, Sundays, and holidays.

Back in the cowshed, the milking is complete, and the milk has been taken to the dairy to be passed through the cooler to ensure its keeping quality. When it is poured into the cooler, it is about 100° F.—that is, slightly higher than human temperature; on leaving the cooler it is only a degree or so higher than the coldest water used in the process. From the cooler the milk passes into churns to await the morning.

The farmer is about all the time, working with his men. He passes along the line of cows and, with a pat and a friendly word to the animals, will know almost as much of their condition as a long examination would show. He chats to the cowhands: 'How's Daisy Bell doing?' 'Patience seems to have forgotten her calf.' 'There's a fault on that floor, remind me.'

With milking ended, the hay is tossed into the cows' overhead rack, and while the animals chew, all their noses point upwards. Straw is carried to each stall, and the beasts are settled for the night. The orderly bustle is over and the lights in a long line go out, one by one.

Across the yard is another cowshed. The animals here are not being milked. Some of them are due to calve, and their stalls are roomy. To maintain thirty milking-cows, as many as sixty or even seventy may have to be kept, for each cow must calve annually, and each is rested from milking for weeks before her time comes.

Everything appears to be well. All have been fed, and so, once more, the lights go out. The farmer gives a last look, with the mental reservation that he will pop in after supper, for a heifer, a cow which has not yet had a calf, is due to calve to-night. The cowhands

pass a cheery 'Good-night, master' as they pass down the lane to their homes. It is now quite dark, and the farm is quiet but for the crying of the calves in their stall.

MORNING comes all too soon, and the farmer and his men are busy again before the dawn. At seven o'clock, the engine is heard once more—another milking-time has come round.

Gone is the straw, and the floor glistens in its coat of clean water. Each cow is eating its cake, and the milk is finding its way to the dairy. In churns, after cooling, it is placed on a trolley along with that from last night's milking. There are about 120 gallons altogether.

Breakfast for everyone begins as the time is near to nine o'clock. Over their hot tea the men discuss their day's work. First, the milk must go to the roadway, ready for collection by the depot lorry, and the daily round starts in earnest. Each animal eats up to forty pounds of mangolds a day, and these will be scattered on the field where the cows are now wandering. Twelve pounds of hay per cow must be cut from the rick and placed in readiness for feeding. A fresh ration of cattle-cake must be provided. Fresh straw must be carted, and dirty bedding removed to a stack.

Each man knows his job, which may have nothing to do with dairy-farming. For instance, if there is poultry on the farm, who attends to it? See that woman trudging through the mud in her wellingtons? She has two pails on her arms. That is the farmer's wife, for it is usually the women that care for the poultry. Who looks after that sickly calf? Who is it that ensures that enough water is pumped up from the lower levels? Who is it that trims the hedges, mends the fences, and cleans the ditches?

Through these winter months the crops of the summer and autumn are fed in huge quantities. There are kale, cabbage, swedes, mangolds, and, of course, cereals. Oat-straw and barley-straw also make fodder, and, needless to say, hay, which was cut and stacked during days of English summer.

When we remember that each cow eats up to seventy-five pounds a day, it will not be difficult to assess the great task that winter merely brings around again. The annual cycle of sowing and harvesting starts with

the plough in the half-light of a winter's day, when the ground is not too heavy with rain. Each man fulfils his part, the work is hard, and the farmer works with his men. Experience lends a cunning to their labours.

With the afternoon, the outdoor work ends as the sun begins to sink behind the woods. The cows are once more ambling back to their cowshed, browsing from any green

leaves that may remain in the hedgerows. Down in the valley the little engine is raising steam to draw the milk-tanks to the railhead to be sped on through the long night towards your city and you. Before you are ready for your early morning cup of tea, the cowmen on this hill will be getting the milk right for the depot lorry, which will call without fail at ten o'clock.

The Great Storm

AGNES SOUTER

BEFORE the 19th century there was no scientific way of measuring the fury of a storm, so it was only possible to judge the tempests of earlier days by the havoc which they wrought and by the impression made by them on the minds of those who experienced them. Subjected to this test, the Great Storm of 1703 entirely justifies its title. It destroyed more property and caused the death of more people, both on land and sea, than any other known English storm. There can be no doubt that the wind blew with true hurricane force, and that it maintained its strength for an unprecedented time. In its continued violence it was a very good imitation of a West India hurricane or of a China Seas typhoon.

Perhaps the most remarkable testimony to the wide and lasting nature of the impression made by this storm is afforded by the tremendous success of Addison's famous comparison of Marlborough to an angel guiding the whirlwind:

*So when an angel by divine command
With rising tempests shakes a guilty land,
Such as of late o'er pale Britannia pass'd,
Calm and serene he drives the furious blast;
And, pleased the Almighty's orders to perform,
Rides in the whirlwind, and directs the storm.*

'The extraordinary effect,' says Macaulay,

'which this simile produced when it first appeared, and which to the following generation seemed inexplicable, is doubtless to be chiefly attributed to a line which most readers now regard as a feeble parenthesis,

Such as of late o'er pale Britannia pass'd.

Addison spoke, not of a storm, but of the storm. The great tempest of November 1703, the only tempest which in our latitude has equalled the rage of a tropical hurricane, has left a dreadful recollection in the minds of all men. No other tempest was ever in this country the occasion of a parliamentary address or of a public fast. Whole fleets had been cast away. Large mansions had been blown down. One Prelate had been buried beneath the ruins of his Palace. London and Bristol had presented the appearance of cities just sacked. Hundreds of families were still in mourning. The prostrate trunks of large trees, and the ruins of houses, still attested, in all the southern counties, the fury of the blast.'

FROM the few barometric observations of the storm which have been preserved, it appears that its centre must have passed roughly over Liverpool and have moved

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across England in an easterly direction. Also, as often happens in such storms, the force of the wind was confined to the area lying south of the centre. Its greatest ferocity was experienced south of a line from the Bristol Channel to the Thames. It blew a very heavy gale farther north; but a direct comparison of the damage done in the Downs with that on the East Anglian coast seems to show that even fifty miles north of the Thames there was a distinct abatement of its violence, and Spurn Head is the most northerly point at which we hear of an exceptional wind-force.

The horror of the storm was increased by the fact that its most destructive period was confined to the hours of darkness, and the calamity befalling at the time of new moon, the darkness was absolute. The several reports, as might be expected, give slightly discrepant accounts of the time when the greatest fury was reached, as also of the wind's direction, but they confirm each other in the main. Thus, we find that in the West Country the storm was at its height at or before midnight of the 26th; in London, about 3 a.m. of the 27th; in the Downs, perhaps an hour later; on the Dutch coast, about daylight.

Just as we have records of heartless crime accompanying the Plague and the Fire of London, so, too, it happened in the Great Storm. 'I cannot but observe here,' says Defoe, 'how fearless such people as are addicted to wickedness are both of God's judgment and uncommon prodigies; which is visible in this particular, that a gang of hardened rogues assaulted a family at Poplar, in the very height of the storm, broke into the house, and robbed them: it is observable that the people cried "Thieves!" and after that cried "Fire!" in hopes to raise the neighbourhood; but such is the power of self-preservation, and such was the fear the minds of the people were possessed with, that nobody would venture out to the assistance of the distressed family, who were rifled and plundered in all the extremity of the middle of the tempest.'

The wind blew furiously for some hours, and then, when a lull might have been expected, the whole power of the hurricane was unloosed. We hear of people everywhere starting from their beds, as though summoned to the Last Judgment; and indeed their accounts of the booming of the wind, like thunder aloft, were terrible enough. At St James's Palace the Queen rose with her maids

of honour, but, though part of the palace roof was blown away, no harm overtook them. At Wells the bishop's palace, modernised from an old castle, suffered heavy damage. The bishop, Dr Kidder, had his bedroom in an old part of the building. Roused by the fall of wreckage, he made for the door; but as he did so a chimney-stack crashed through the ceiling, dashing out his brains, and burying his wife, who had remained in bed. Similar accidents were not uncommon. Yet in other cases there were remarkable, or as it seemed, miraculous escapes.

IN the country, where houses stood single, and where, no doubt, the majority were built of wood, the havoc was very severe. We hear of 800 houses blown down, while barns, corn-ricks, and haystacks were demolished by the thousand. Church steeples, too, were laid low, one of them, at Brenchley, being reputed the highest in Kent. 'This strong and noble structure by the rage of the winds was levelled with the ground, and made the sport and pastime of boys and girls, who to future ages can boast that they leap'd over such a steeple.'

Bristol suffered at least £100,000 worth of damage, a large part of it from the flooding of cellars in which was stored the rich produce of the West Indies and America. Speaking of the devastation in the Severn valley, Defoe says: 'They tell us the damage done by the tide amounts to above £200,000; 15,000 sheep drowned in one level, multitudes of cattle on all the sides, and the coverings of lands with salt water is a damage cannot well be estimated.'

Some curious results followed. From the wholesale destruction of corn-ricks, there might have been a shortage or dearth of bread in the ensuing winter. Fortunately, it turned out quite differently. For a month after, no appreciable rain fell. The scattered corn was therefore gathered up, practically undamaged, and threshing was put in hand at once on a large scale. This was for two reasons—both to save the cost of rebuilding the ricks, and because, owing to the great number of houses which had been unroofed, there was an unprecedented demand for straw for making thatches. Thus, in some measure, the storm served to repair its own devastation.

In the Isle of Wight it was noticed that the fine spray of the sea, blown many miles

inland, had rendered the grass so salt that the cattle would not eat it.

Several strange meteorological phenomena were observed during the tempest. 'Tho' I cannot remember,' says Defoe, 'to have heard it thunder, or that I saw any lightning, or heard of any that did in or near London; yet in the country the air was seen full of meteors and vaporous fires: and in some places both thunderings and unusual flashes of lightning, to the great terror of the inhabitants.' These 'unusual flashes' are elsewhere described as not striking down, but as running horizontally along or near the ground.

AS would be expected, the greatest mischief caused by the storm was at sea. There is for the purpose of comparison between land and sea no certain record of the loss of life, but it is believed that on land the deaths, other than those caused by the Severn floods, were about 125, or not many more. On the other hand, it was stated that the lives lost at sea amounted to 8000, a not unlikely figure: we have pretty exact records of the losses of the Navy, and we know that they included some 1500 lives. The Queen wished that all those who lost their lives that night at sea should be considered as having died in action and their families be treated by the established scale. Her wish was carried out.

In the Port of London the fact of the tide being high when the storm was at its fiercest did not make for safety. It gave the wind a further fetch and deprived the ships of the shelter of the banks, with the result that anchors dragged, moorings parted, and the whole mass of shipping was driven to leeward in a solid body. Owing to the horseshoe bend made by the river, everything between Ratcliff and Deptford was forced by the wind into the bight by Limehouse, and the space being small, and the number of ships very great, hulks were dashed into and on top of one another in heaps. One vessel would be

seen lying heeling from the shore, with the bows of another over her waist and the stem of still another on her forecastle; the bowsprits of some drove into the cabin windows of others; some lay so the tide flowed into them before they could be righted; some so much on top of others that the undermost sank before the other was floated. Boats everywhere were crushed to pieces between the ships. Masts were carried away. Such is the picture, and there can be no doubt that in harbour, as at sea, the damage was great.

The first lighthouse on the Eddystone was built by Winstanley in 1696-1700, so was but a few years old in 1703. Winstanley had complete faith in his creation and is reported to have said that he would wish to be in it in a gale. It so far justified his opinion in that it stood through the gales of the previous fortnight, which were very severe. Apparently it had suffered some hurt, for on the 26th Winstanley, profiting by the short lull in the weather, went to the lighthouse with a few workmen to superintend necessary repairs. The gale which sprang up prevented his return to the shore, if indeed he wished to return, and the storm that followed gave him the opportunity he is said to have desired. How or when the lighthouse went can never be known. All that is certain is that on the morning of the 27th no trace of the tower or of its occupants remained, everything above the solid stone base having been swept away.

There are recorded a few other storms which did serious havoc by wind-force, but with hardly an exception it is very difficult to say how much we would have heard of a particular gale had not the wind provoked the water to invade the land. It may be granted without hesitation, as a most unusual case, that the Great Storm would have lived in history for the sheer damage it did in town and country, even had it not been felt at sea; and yet we know that the harm it caused at sea, especially in the loss of life, was incomparably greater than on land.

White Night

*I lie in pain; and slumber flees away
Along the path of waking dreams distressed.
I watch; and see another cold young day
That shivers into being on Night's breast.*

L. D. FORWARD.

Third Degree

JOHN EDISBURY

MOHAMED ALI was the best bash rais I ever had, and his son the best native servant I ever employed. They were Nubian subjects of Egypt, from the Upper Nile, and belonged to the Matoki tribe, a people of very mixed Arab and Negro blood and more renowned for producing excellent syces than house servants; but they are as clean as the Sudanese, with whom they claim near kinship, extremely honest, fairly truthful, and very loyal. They adore the English, and emulate and envy the Sudanese in both despising and wishing to be free of Egyptian rule.

They live the hard way, taking Nile perch from the river, grazing goats, sheep, and camels on the scrub of the desert, and tilling the less untractable plots of near-by stony earth to grow doura and bersim for themselves and their horses.

They are a simple, devout people. You never saw a Matoki looking for a hollow in the ground to find an early sunset during Ramadan. Where such an one found himself at the close of day, that was where he awaited the going down of the sun to break his fast, earlier or later as Allah willed it. Upon such people you may place reliance, save when they become immoderate in the use of hashish or take to petrol-drinking.

I LIKED the quiet, dignified look in Mohamed Ali's pale-brown aquiline face when I took him on as a section rais, and when Abbas, the Egyptian bash rais whom I inherited with the unit, was caught out stealing maize for the cooking-pots in the brothel-cum-canteen he ran as a profitable side-line, there was not the least doubt or difficulty about selecting a much better man to take his place.

I had always known that the 'savages,' as

Sergeant Ruffel called them, of 'H' Section were afraid of Mohamed Ali, and that fear was shared in an enhanced degree by the natives of the entire unit when the old man—unhappily he was old by native standards—assumed greater and wider authority as bash rais of the Company.

Except for his distinctly dignified, somewhat detached bearing, even when taking the hide off some offender with a korbag, there was little to account for the especial awe in which he was so patently held, and I was somewhat at a loss to find a reason for it, until I learned he was 'blessed by Allah,' *maknun*—or a little mad.

He told me of his affliction himself, without seeming to count it as such, one evening as he squatted on a woven goat-hair mat in front of my roorkee chair, and, in the course of one of our almost regular chats on things in general, I gathered that on one of his infrequent visits to Kalabsh, his native village, a while ago, he had been prompted by a very large djinn, who first leapt at him from behind a small pebble and beat him about the head with the trunk of a palm-tree, to cut his own throat. 'It was sad,' he went on gently, 'that I did not die, because of the skill of our village hakim, and that day my new wife brought forth a male child, but me they carried to Abbassieh, where the Egyptians gather the very mad together and lock them up.'

His sojourn in the asylum was a short one, for, not only was his behaviour that of a normal person, but, while refusing to contribute to his maintenance as a patient, the Kalabshi folk subscribed enough money to keep his family from want as well as to accumulate a balance sufficient, when applied in the right quarter as bakshish, to bring about his discharge.

'One has to beware of djinns, who are very

terrible unless one acquires a power over them,' Mohamed went on. 'Now, since I am a humble friend of El Melik, their king, I treat them with all respect, but have some command over them. It is not thus with ordinary people,' he continued without pride, 'for it is necessary to have passed beyond a certain border before one can assume any degree of mastery over them.'

I asked about afrits, and whether they are to be feared by ordinary mortals, but Mohamed Ali waved away the suggestion with a light movement of his skinny, yellow-brown hand and replied: 'They are only terrible to the fearful and, on such, afrits, who are very plentiful and full of mischief of a harmless kind, may impose many burdens of an irritating character. Djinnns, however, are different, for they are indeed both powerful and terrible, yet as a sword or a whip in the hands of those who may command their obedience.'

'What about ordering a few to discover the clefty wallahs among the forage men?' I suggested.

'It was on that account, Bimbashi, that I spoke of my respectful friendship with the king of djinnns, for your thoughts were an open book to my eyes—though I cannot read and have to seal my name with a thumbmark. Give leave for all the forage men to be summoned after stables and before to-morrow's evening meal to my tent, and, if you will be present, the stealers of grain will reveal themselves to you.'

Curiosity alone would have actuated my acquiescence in the proposed thief-hunt, but the amount of barley, millet, and maize which was being filched represented a serious drain on the not too generous ration allowed for my hard-worked animals, and any measure likely to improve the situation was worth trying.

AFTER evening stables on the following day I made my way to the native lines, where, in front of the bash rais's tent, I found my own special roorkee chair set up, and beside it a low stool, from which Mohamed Ali rose to give me respectful greeting. He apologised for his stool, saying: 'It is not fit that I should sit on high in your presence, Effendim, but the occasion requires me to be raised above these men,' and he indicated the twenty forage men shifting on restless feet in a close semicircle

before the two seats. 'You will sit, Bimbashi, and please permit me and these men to do likewise?'

I sat down and gave the required permission, whereupon the forage men squatted in the sand and, with another deprecatory glance at me, the bash rais resumed his low stool, before calling for a brazier and three sacks of grain, which two Matoki section raises brought into the circle before us.

The brazier was kindled, and Mohamed Ali bade two of the forage men to rise, go into his tent, and bring from thence a brass pot and a ladle which they would find on the table within, while another named man accompanied them to light a hurricane-lamp that hung from the ridge-pole.

As the three emerged, the old rais said: 'Close now the door of the tent and tell us of any person you saw within.'

'Lo, there was no one within, Mohamed Ali,' the three declaimed.

The bash rais took the brass pot and ladle and, from the open mouth of the first sack, scooped twenty portions of maize into the pot, which he placed in the heart of the fire, now burning merrily in the brazier, and returned to his stool, sitting down with his face to the tent.

By this time it was dusk. Then the last gleam of day died swiftly before the sudden onslaught of an Eastern night and, through the murk, the lighted tent glowed like a dirty Chinese lantern.

Mohamed Ali suddenly broke the silence to commence what sounded like an invocation, but, although I could pick out an odd word of Arabic here and there, he spoke for the most part in a tongue that was strange to me. I turned to see what effect the performance was having on the forage men as they squatted round the brazier, but gathered nothing from the row of immobile figures and the twenty pairs of eyes staring at Mohamed's back, or the tent-flaps, save that their owners were in the grip of a strained absorption.

The bash rais changed abruptly to the Arabic of the Upper Nile and I heard him say: 'Now, welcome, O King of the Djinnns.' A horrified gasp broke from the assembly behind him, and I craned my head to ascertain the cause. It lay in the tent, where the dark shadow of an upright figure showed in black silhouette against the screen of the door-flap.

Mohamed Ali turned to me with a wild light in his protruding eyes and whispered

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excitedly: 'Speak to him, sir, speak to him.' So I bade the figure '*Salaam aleikum*,' without stopping to think whether a Muslim form of salutation was the proper one for such ears. Anyway, it was ignored, unless there was some recognition of it in the rather angry tones which emanated from within the tent, but the language employed was unknown to me and, for the sake of my dignity, I swung round my head to face the forage men again. No one was paying any attention to me, however. Every popping eyeball fixed a hypnotised gaze on El Melik's shadow and listened with painful attention.

'HE is angry that I have called him from the Blue Mosque in the bazaar,' Mohamed explained in the same excited whisper as before, 'but he will do as I ask.'

The voice from the tent took on a calmer note and changed to a slow, creaking Arabic: 'There was no need to bring me hither. The power I gave you, Mohamed Ali, is sufficient for the purpose. Now serve the grain.'

Mohamed rose, ladle in hand, walked to the brazier, where he stirred the contents of the brass pot, and summoned, one by one, the forage men to stand before him with right hand extended to receive the ladleful of scorching corn which he spilled into the palm of each in turn. The first three seemed to experience no discomfort, and were ordered to squat again, but number four dropped the smoking grain upon the sand and wrung his hand, dancing with the pain of a searing burn.

'Well, thief,' Mohamed demanded, 'do you own to the sin of robbing the Bimbashi's horses?' But the fellow was a hard-faced rogue and shouted a fervid protestation of his innocence. 'Then take your choice. Enter the tent and repeat what you have said to him that is within, or look, without speaking, over your left shoulder at what is behind you.'

I saw nothing at the fellow's back, and he chose what, no doubt, seemed to him to be the lesser risk. At any rate he turned and, with his head still twisted to the view in his rear, moaned, and fell forward as if he had been shot, to lie rigid as death, except for his

lips, which quivered spasmodically to bubble a frothy saliva. There was no argument after that.

Of the remaining sixteen, seven passed the first ordeal and, when told that similar trials would be made with millet and barley, all but three confessed to having pilfered one or both of these grains under different circumstances and in varying quantities. One elected to undergo the further trials and emerged unhurt, and therefore innocent, but, alas for human frailty, thirteen of my twenty forage men admitted guilt in various degrees, driven to confession by consciences awakened by the effects of the trial upon others and without being subjected to its rigours themselves.

A BUCKET of water and a cut of Mohamed's rhino-hide whip restored the recumbent convict to his senses, and, after telling Mohamed which of the criminals should taste raw hide and be retained and which to hasten out of the lines with the korbag, I congratulated him on the success of quite the best gully-gully performance I had ever witnessed.

'Yes, Bimbashi, I, who cannot even write my name save by wetting my thumb with ink and pressing it on the paper that must be told aloud for me to understand, I read your mind when you spoke to El Melik with a low laughter in your voice.'

We were standing by the brazier's glow, for the night chill had descended, and the red-hot embers of the fire exuded a pleasant warmth. The bash rais smiled sadly at me as he stooped to let his right hand fall into the fire and I saw his thin fingers scoop together enough gleed to cover the palm. With unstudied calm he straightened himself and placed the red-hot embers in his mouth, closed his lips, and stood watching me with a gleam of tranquil amusement in his eyes. The embers were black and dead when he spat them out, and there were no signs of burning about the lips or within the mouth Mohamed Ali opened for my inspection. 'The Bey sees that I am innocent of trickery by a test which no gully-gully man would submit to,' he said with dignity.

English and Foreign Tails

H. S. L. DEWAR, F.R.G.S., F.R.A.I.

A PASSING allusion in a recent broadcast to the once widespread belief in the Englishman's tail brought back vividly to my mind an occasion when I was actively following the trail of tailed men. So my Mikir guides said. The Mikirs lived, still rather uneasily, I think, alongside the Nagas of the Assam Hills. In olden times the Naga tribes used to hunt the Mikirs for their heads and, according to the Mikirs, who were a passive folk, the Nagas had tails. In proof of this, as we neared the Naga country heading south, the guides pointed with trembling fingers to the places where parties of Nagas had sat round their camp-fires by the side of the winding, leech-infested trail. 'There!' they exclaimed. 'Do you see that little round hole? And that? And that one there? Those are the places where the Naga people stuck in their tails when they sat down.' Sure enough, they were right. There *were* the little round, smooth-sided holes dotted about among the dead embers and flattened leaves. Some of the holes were quite fresh too.

However, when we came to the no-man's-land dividing the tribal territories and entered the first Naga village of Tagibigaon, it was with some sense of disappointment that I noted that those redoubtable warriors did not have tails. And as they wore precious little clothing anywhere, and none at all behind, there could not be any doubt about it. The Mikirs were perplexed. The tailed folk must live farther in, they argued, across the Kaliani, beyond the Dhanseri; perhaps the other side of the Kohima Ridge.

I found the holes had been made by the legs of baskets. So we continued, the Mikirs more restless with each day's march, until at the last we struck a village where a 'genna' was in progress, a genna being a gala-day when no work is done and when every soul dresses in best beads, sashes, and berries. And,

joy of joys, behold, every warrior wore a lovely, curved tail that might have been the envy of any collie in the land. 'Yes,' said the warriors, between screams and pirouettes, drawing their fingers across their own throats and mine in playful fashion, 'that's genna dress, that is. When we used to go out after heads, we carried our caltrops in little baskets at the base of those tails and sprinkled them in the path to spike our enemies' feet. Those were the days!'

But my object is not to pursue the Nagas' tails, because it has all been done before, as any man in the 14th Army could tell. Rather would I like to raise the question of the Englishman's tail, and chase it to some of its origins, since, in spite of some evidence to the contrary, that appendage, the *Caudatus Anglicus*, remains elusive, invisible. And yet? I wonder.

FAZIO DEGLI UBERTI of Florence, in his verse *Dittamondo* ('Discourse of the World') of about 1370, records that the English were white, and fair to look upon, even as the Ethiopians were black and ugly. Broad pastures, splendid rivers, food in plenty we had, but one thing he saw not, though he heard all about it, and, as all agreed on the subject, he must set it down. Among these Isles there was an islet where people were tailed from birth. Short, stumpy things they had, like stags' tails. And when their swaddling-clothes were taken off, their mothers fled to avoid this mischief. One wonders how Fazio thought the race went on.

Two centuries before Fazio, Wace had described the occurrence from which the curse of the tail was thought to have sprung. Robert Mannyng paraphrased Wace's account in his *Chronicle of England*, completed in 1338, and after relating how St Augustine, the

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Apostle of the English, was preaching in Kent, he tells how the wicked English

*Beyynd hym on hys clothes they henge
Righe tailles on a strenge.
When they had done that vyleny
They drop hym thenne wyth maistri;
ffer ways they gan hym chase
Tailles they casten in hys face.*

But St Augustine besought God that the tail-throwers in turn be tailed:

*And God graunted all that he bad,
ffor all that kynde tailles had,
Tailles hadde, and tailles have.*

Sometimes the legend is rooted in Rochester, where, it is said, the mothers go over the bridge to Strood to avoid having tailed progeny. But do they? For Polydore Vergil, though for a different reason—namely, the cutting off of Thomas à Becket's horse's tail—places the tail as the penance of Strood. Nevertheless, John Bale, the Bishop of Ossory, quoting Capgrave and Alexander of Ashby, passes the tail over to Dorsetshire on account of the pelting of St Augustine. In their turn Dorset folk tell the story of Cornwall, and all good Devonians have helped their neighbours to send the unwanted thing westwards.

Yet, while the tail wanders unwished for and forlorn in England, let not Scottish friends be entirely without qualms. Did not Judge Monboddie of the rustic suit and little round hat hold that, if a man did not have a tail, he certainly ought to remedy that sad blemish, the abrupt end to the spine? And did not Dr Johnson say of the young Laird of Col: 'He is a farmer, a sailor, a hunter, a fisher, he will run you down a dog; if any man has a tail it is Col.' However, one is bound to admit that the learned Doctor visited Monboddie and challenged him without success to produce him a specimen of *Homo caudatus*. Why then, it might be argued, did Johnson allude to the Duchess of Argyll as with three tails? In any case, what neither of them may have known was that in the museum of the College of Surgeons in Dublin, according to Dr Wolff in his *Travels and Adventures* (1860), was to be seen a human skeleton sporting a tail of some seven inches long.

SOMEWHERE about 1870, the tail appeared—so state Baring-Gould and a newspaper report—as near Scotland as Newcastle-upon-

Tyne, an inch and a quarter in length. The lively journalist told that the lucky child used to wag it in pleasure as he was being suckled. The little dear. Well, whether or no it be that we in England have had it, and, not needing it more, have laid it to one side and hardly ever speak of it now; that the Scots have been unable or unwilling to achieve it; that the Irish keep their tailed skeleton in a cupboard; or that the Manxmen have turned their tail into a third leg and prop upon which to rest—all the world knows that the Niam-Niams have a tail, while the Abyssinians and the Armenians are sure that the people of Narea possess it and would not be without it for anything. Wherever one goes, it will crop up, sooner or later, just when it is most unexpected.

The tale of a tail is as sure, if as elusive, and therefore fascinating, as that of the mermaid, the unicorn, the vampire, or the werewolf. And speaking of mermaids, and assuming their tails, I am reminded of the Kikapoo Indians, who say that because of their pride their Maker gave them tails. He then amputated them—and made women. Therefore, and because of that thing, the women—of course I refer to Kikapoo women—have been trailing after the men—the Kikapoo men—ever since.

But, if all this is vain talk for which there appears but a slender foundation, it is a fact, as the Reformer Bale pointed out, that 'an Englyshman cannot travayle in another land by way of merchandize or any other honest occupyng but it is most contumeliously thrown in his tethe that all Englyshmen have tails.' Perhaps it is just as well that in addition to other troubles, our merchant exporters, their travellers and agents do not now have to deal with such remarks as: 'Humph! Yes, the quality and price seem fairly reasonable, but, you see, there is the point that we find our clients just won't stand, for . . . ahem! . . . there is this little matter of your tails.'

If, therefore, there should be any guilty ones among us, let them go slinking down the Strand with their tails carefully stowed away in their pockets. It simply would not do to decorate them with white beads and wave them about like the Nagas at a genna. If other nations like to indulge in theriomimesis, that is their affair. As for us, St Augustine seems to have converted us pretty thoroughly, and only in the last possible resort might the question of such an appendage have to be reconsidered.

Taking Light to Lhasa

MARTIN THORNHILL

SLOWLY—infinitely slowly—the impact of modern progress is being felt in Lhasa. And that is noteworthy, for Lhasa, the capital and holy city of Tibet, is probably the most inaccessibly mountain-bound settlement in the world. Picture this remote region, high in the Himalayas, where no plateau is below 10,000 feet; where in a day and a half you may climb through a dozen zones of climate and vegetation; where single-cable bridges span rushing rivers in which no vessel could float, no man swim, but whose calmer stretches are emerald green, studded with ruby-hued rocks.

A new road, war-built, from India to China, runs within a few days' journey of Lhasa. The highway, such as it is, brings trade in new forms within easier reach of 'The Roof of the World.' The great passes from Tibet into Nepal, however, still wait to be surveyed, their traditional names known only to the few Westerners who have travelled them—Saddle Mountain, Crossways Village, Purple Storm Pass, Big Flat Mountain.

Lhasa's emergence from its ancient seclusion dates really from the unusual circumstances of the death in 1933 of the thirteenth and greatest Dalai Lama, ruler of Tibet, a state more than twice as large as France, and nominally within the political orbit of China. The basis of Tibetan theosophy is that the soul of their priest-emperor never dies, that at his physical death his spirit passes to a new-born child. The last Dalai Lama, however, expired without the customary supernatural signs pointing to his rebirth; it seemed there had been no prophetic vision of a successor, and fear gripped all devout Tibetans as their country was left without a ruler.

Every room of the silk-cushioned, gold-turreted summer-palace of the Dalai Lamas was left prepared for the apparently imminent

appearance of a successor. His teacup, bell, and prayer-wheel were put ready, a bowl of fruit on the carved wooden table before his seat. Then, a high dignitary of Tibetan Buddhism saw in the waters of a magic lake an image of his dead mother holding an infant boy in her arms. Lamas representing the whole country journeyed to the village for official test as to whether the child disclosed in the vision had been born at the precise moment of the old ruler's death.

There the authenticity of the discovery was seemingly amply confirmed by the usual divine signs and portents. Had there been any doubt, every infant of that age would have been made to crawl over a carpet in a race towards the regalia of the dead Presence. The revealed youngster, now a lad of fifteen, will continue to be taught the mysteries of Lamaism until such time as he is eighteen, when he will become supreme sovereign of Tibet.

MEANTIME a Regent has ruled over the realm, and he favours closer contact with the world outside. The postal system, whose strongest feature is the relays of runners who cover the 330 miles from Lhasa to Gangtok in eight to ten days, has been augmented by a telegraph service with India, presided over by a Tibetan monk, who even speaks English. The system functions efficiently, though muleteers sometimes take the poles for firewood and, for relaxation, hurl stones at the insulators. Lighting is normally by the traditional lamp of a wick burning in a bowl of mustard-oil or yak butter. But, following the return of four bright Tibetan youths from England, where they had been trained as soldier, surveyor, mineralogist, and electrical engineer, an electric plant illuminated the royal palace in Lhasa, the

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official buildings, and some of the larger houses.

Eager to improve upon this, the Regent recently arranged with a British firm to supply equipment to expand the service. The specially-made apparatus has now reached Lhasa, carried there on yaks and mules over the high mountain-passes from the railhead at the foot of the Himalayas. For a few years a good circular road has run round the capital; yet the streets inside are still full of pot-holes and open drains. Everywhere farmers continue to flail their barley and use yaks to trample-thresh their corn. Essentially, Lhasa remains a city ancient as the Old Testament.

Until the turn of the century, travellers called Lhasa 'The Forbidden City,' for outsiders were precluded from entering it, and governments sent in paid agents from the lands adjoining. Disguised as pilgrims, these spies carried rosaries whose beads represented a hundred paces, to record distances. Instead of prayers, in their prayer-wheels was blank paper to make notes of what they saw. They had compasses concealed in sticks. Only by such means could the world outside learn any of the secrets of the city and ascertain its position for map-making.

Removal of the foreigner ban gave access to Lhasa, though its mountain remoteness made it no easier to visit. Once there, however, one is immediately struck by the impressive beauty of the Potala, the monastery-palace of the Dalai Lamas, close beside the city. Erected on the summit of a 700-foot-high hill, this building of phenomenal size completely dominates the vast green vale of Lhasa, girdled by giant mountains.

Crowning the Potala itself are golden pagoda-like shrines, which enclose the tombs preserving the mortal remains of all thirteen Dalai Lamas. Inside, the monastery is less impressive than its superb exterior; its gloomy, higgledy-piggledy passage-ways are slippery from centuries of spillings of tea, which is drunk coarse and black, salted and buttered. And one wonders why Tibetans, such admirable external architects, have never learned to construct arches, nor even to put staircases inside their homes, communication between storeys being generally by rickety wooden ladders. The people are very fond of flowers, almost every window, verandah, and flagged path being adorned with gay blooms, of which the growers contrive a

continuous show by keeping them in pots, replacing each exhausted variety with another about to blossom.

TIBETANS, of whom the well-bred have charming manners, are all also intensely devout. It is the custom to erect prayer-poles or monuments at every holy place. And these are legion—particularly spots near such rivers as are held sacred, especially their sources, and on mountain-passes from which some other holy place is first seen. Free entry to Tibet was finally granted to outsiders only when it was realised they would not interfere with the religious practices. There are hundreds of monasteries, usually with a large, gloomy central hall half-filled with gold or brass deities nearly twenty feet high, and surrounded by small, locked rooms housing gods and spirits dedicated to flowers, crops, and children. Outside are enormous prayer-wheels, and gongs and long horns for sounding the summons to service. Adjoining the building is a gold-roofed penthouse, place of residence of the head lama, or high-priest.

But it is the great religious festivals at Lhasa that are the national attraction. Sun-burned pilgrims with a faraway look in their eyes undertake months-long journeys on yaks and ponies to attend these periodic gatherings, for exciting features are paraded under the religious overlay. The grand finale is the Dance of the Gods. From the crest of Potala Hill extends a leather-thong rope, the other end secured in the plains below. Wearing a leather breastplate, one hillman after another skims down swallow-like, and swift as an arrow. To lose balance means instant death, but success earns from the judges a substantial reward.

Amazingly advanced in some respects, childishly simple in others, Lamaist monks work a gold-mine on the basis that the larger nuggets should be left in the earth untouched, so that they will germinate and reproduce the smaller ones which the monks gather and use. This mine and its fellows account for the astonishing fact that gold is used where craftsmen of other lands would employ copper or brass. Though gold is not normally exported, other priceless things occasionally escape from Tibet—lately, for instance, the world's most valuable carpet, given to the Dalai Lama by a Chinese Emperor in 1651, and valued at

£25,000 by the Greek merchant who has gained possession of it. For the real wealth of Tibet is the coarse wool from her great flocks of mountain-sheep, which is shipped abroad to be turned into carpets and rugs.

Oddly, this land of vast intrinsic wealth is, like China, full of beggars. When it was announced that the signing of a British treaty with Tibet would be marked by the gift of a tanga (about 3d.) to all beggars in Lhasa, the estimated turnout was a couple of thousand at most. Instead, the appointed day saw the whole plain black with mendicants—some eleven thousand of them. There had to be a

limit on this largesse, so any beggar who rode up on a caparisoned horse was told he was ineligible.

As evidence of the people's backwardness, gramophones and radio-sets are still a visitor's passports to social success with the folk of the world's mightiest concentrations of mountains. Airmen have reported some of the peaks to be higher than Everest, few even of the passes across the western Tibet ranges being lower than 18,000 feet. And it is of particular moment to official geographers and map-makers that the surveys now planned may confirm some of these claims.

In the Dogs

W. LINDSAY COOK

THE trawler battled on at a steady ten knots. Her name is of no moment; she was but one of countless little ships who played a gallant part in the war at sea. She was on Northern Patrol, and spent twenty-one monotonous days at a stretch, covering the same area day after day. The date was 23rd November 1939.

It was icy cold on the bridge and the young Sub crouched behind the dodger, flapping his arms and stamping his chilled feet in the heavy sea-boots. Even his duffel-coat and three sweaters failed to defeat the raw Arctic dankness. It was 1500 hours, and already darkness was falling. The wind was freshening, the sea rising, and a flurry of snow swirled into the open bridge.

The trawler was a grand little ship and behaved beautifully in all weathers. She was thick-set and sturdy, without the slim elegance of the destroyer, it is true, but with an air of good-looking efficiency all her own. Deep-draughted aft, around fifteen feet, she drew less than nine feet forward, and her full-flared

bow served to keep her comparatively dry on deck.

Glancing at his watch, the Sub saw it was 1525 and anticipated cheerfully the friendly warmth of the wardroom, which had been the fish-hold in times of peace. He was due off watch at 1600, when Number One took over.

SUDDENLY a low rumble broke the silence. It was almost imperceptible to the Sub against the various noises of his own ship, but the boy heard it and looked about sharply, trying to locate the quarter from which it had come. There it was again, this time preceded by a faint flash, which he sensed rather than sighted. He waited, and next time he saw the pale glow and heard the rumble.

The C.O. was within call in the chartroom. Ought he to disturb him for a thunderstorm? On the other hand—well, there shouldn't be thunder in November; and yet he didn't know, in these latitudes. He decided swiftly,

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and even as he stepped into the chartroom the Old Man was on his feet, alert and fully awake, giving no sign of his deadly tiredness and weariness from lack of sleep.

When either of the two Subs was on watch the captain made only a pretence of resting. His mind was alert; he was tense and ever ready to go out on the bridge, for he sensed, in a way he did not seek to understand, any doubt or uncertainty on the part of the boy on watch. So it was now. He had been prepared to rise off the couch the second he heard the Sub's footstep. 'Yes, Sub, what is it?'

There was no impatience in his tone. If the voice was somewhat gruff it was not unkind, and the boy replied promptly: 'There's rumbling and flashes, sir, like thunder and lightning. It's snowing a bit, too, sir.'

'Well, let's have a look-see,' said the C.O. as they stepped on to the bridge. He made a movement with his hand towards the glasses. The Sub passed them to him and watched anxiously as the Old Man adjusted them and scanned the horizon.

The next rumble was quite loud and the flash was vivid. 'That's gunfire, Sub. Pretty heavy stuff, too. There's nothing to be seen yet.'

Together they stood on the small bridge, keyed up, waiting, each straining to pierce the dense grey curtain of gloom. Visibility had closed in to roughly five miles. Neither spoke. The C.O. was grimly intent, and the Sub unwilling to break the silence. The gunfire rumbled almost continuously and the air seemed to shudder with each reverberation.

'Bit of a party going on, sir!' The voice was that of Number One, who was taking over watch at 1600. 'What do you reckon it is, sir?' he sounded the captain.

'There's no knowing, Number One,' came back. 'I only hope *Newcastle* is one of them. She is the only battle-wagon we have in these parts.'

'All right if I stay up, sir?' asked the Sub. 'Surely,' was the quiet reply. 'The light's going. What's the time now?'

'Sixteen-fifteen,' the Sub and Number One answered in unison.

'It's quietening down a bit,' observed the C.O.

Ten minutes crawled past unwillingly. Then all at once the firing ceased. The three waited expectantly, each finding the sudden silence oppressive, intolerable almost. At

last the captain expelled a deep breath. Number One ran his finger round the high neck of his seaman's jersey and explored in his pockets for his pipe. The Sub struck a match and held it for him. With a brief nod of thanks Number One blew a cloud of smoke. The Sub did not flick the match away, but held it, still burning, cupped between his hands, his gaze fixed in the grey depths of sky and sea beyond the captain's shoulder.

'Look out, Sub, you'll burn your . . . —My God, sir, look at that!' exclaimed Number One, all in one breath.

'Yes, and it's—it's moving. I thought it was a bit of cloud or something,' stuttered the Sub. All three stared at something which was coming up on the port beam. There was no real shape to it; it was just a dark ominous smudge thrusting its way into view. Gradually the thing took form—it was a battle-wagon, and she was drawing ahead all the time.

'That's not *Newcastle*!' The captain spoke quietly, deliberately. Without a word the Sub dived below for the silhouette sheet. Three pairs of eyes fastened on one silhouette. It was the *Scharnhorst*—of that there was no doubt.

EVEN as the C.O. pressed the bell to sound off 'Action Stations,' the lookout on the port wing of the bridge sang out: 'Object bearing red two o!' From the bridge they watched the form in silence until it was approximately three miles off and about two points on the bow.

A step on the iron ladder announced the hasty arrival of the Senior Sub, who acted as Navigating Officer. He was breathless and obviously just awake. 'Have I missed something?' he inquired sheepishly. 'I have been asleep.' For answer the captain nodded to port. The Navigator took one look, and his mouth fell open. 'What! *Scharnhorst*?'

'Yes, *Scharnhorst*. And we are going to send an enemy report to base.' The captain spoke grimly. 'See to it, will you. You know the drill. "Have sighted *Scharnhorst*." Give our position and her course. I should say around 045, near enough. Her speed—oh, say twenty-five knots.'

'Perhaps she hasn't sighted *us*, sir,' suggested the boy a bit tentatively.

'She will, as soon as we break radio silence,' was the abrupt reply.

'Now, young Sub,' said the Old Man to the Junior Sub, 'on the gun. Check up on the hands in the magazine and the hoist.' The captain spoke in a low, firm voice, and added with a faint smile: 'Wait until your father hears you have been tickling the *Scharnhorst* with a twelve-pounder!'

The boy grinned as he went off the bridge, then turned to say shyly: 'Good luck, sir.'

'Number One, you had better take a quick look-see. Have a word with the men on the Hotchkiss-gun and tell the steward to rope in an extra hand for the first-aid party. Get both cooks busy on a good tea—if we ever need it.'

The captain made no effort to hide his worried frown as he spoke to Number One. 'Look at these youngsters. Not one of them over twenty-one.' He pointed to the gun-crew on the twelve-pounder in the bow. The four seamen were greeting the Sub with jubilation. One patted the barrel of the gun and thumbed his nose at the *Scharnhorst*.

When Number One went off on his tour of the ship the captain shouted down the voice-pipe to the cox'n: 'All right down there, cox'n?'

'Yes, sir. How is it with you?' floated up the reply, slightly distorted.

'Sticky wicket, cox'n!' the Old Man called down. 'It's the *Scharnhorst*.'

'Ay, so I heard, sir.' The voice, distorted though it was, was full and sympathetic, and it gave the captain an odd feeling of comfort to think of that good, solid Westcountryman at the wheel. He, like the C.O., was a reservist, and both had seen much action in the first war and knew something of the horror and devilry of fighting at sea.

The captain picked up the glasses and again took in the *Scharnhorst*; then he lowered them with a frown, made some slight adjustment, and looked once more for a full minute. Suddenly he called with some agitation: 'Navigator, are you there? Here a minute! Quick, man!'

The Senior Sub ran from the chartroom, the partly-coded enemy report to base in his hand. 'Yes, sir, what is it?' he asked a trifle fearfully.

'Take a look,' said the captain. 'She is turning towards us. She has altered course. By God, Sub, she means to have a good squint at us.'

The boy paled and took the glasses without a word, and focused on the enemy. His head

turned a fraction of an inch as he followed her, and then he spoke uncertainly: 'I am not sure, sir, but I think she is maintaining course.' Then with unconcealed excitement he shouted: 'Yes, by Jove, she is—she is maintaining course. Look, you'll see better now, sir.'

The C.O. took the glasses hastily and looked again. Then he drew a deep breath. 'Yes, you're quite right, Sub. Well, that's that. Better get the enemy report off now.'

ALONE on the bridge, the captain focused once more on the enemy. Any hope that they were unobserved would be dispelled the minute they broke radio silence to call base. It was doubtful whether transmission of the message would ever be completed. The battleship's after-guns were bearing on them, quiet but none the less menacing.

Ah! there it was, the enemy report to base. Now for it! The captain braced himself as his imagination leaped ahead. The first shell would be eight hundred yards short; the second four hundred yards short; and the third . . . 'No reply from base, sir,' broke in the Navigator at his elbow. 'Shall I try again?'

'No, give them a couple of minutes,' instructed the captain. 'And for God's sake stop walking about on tiptoe!' he roared.

'Isn't that just asking for trouble, sir?' ventured Number One, who had just returned.

'Isn't what just asking for trouble?' snapped the captain.

'Sending an enemy report to base,' answered Number One.

'Could be, but we are bound to keep on until we know base have the report,' replied the captain. Then, his voice sharp with anxiety, he burst out: 'I don't like it any more than you do, Number One. I am fully aware of what is liable to happen to us, but the report must be sent off. Base may not even know there's an enemy battleship in these waters, and—well, dammit, it has just got to be done, whatever the consequences.'

'Navigator, try base again,' the captain called. 'And keep trying until you get a reply.' Immediately the report was again signalled, and again the captain scrutinised the enemy, whose after-guns were still bearing on them.

A trickle of perspiration ran down the captain's face and he appeared tired and strained. He felt completely alone in the

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universe; the man on the bridge by his side was forgotten. The enemy was now more distant and he had to concentrate hard to make out her gun-turrets.

'Sir, sir, Y for Yorker.' The Navigator almost tripped in his anxiety to inform the captain that base had replied: 'Message received and understood.'

'Good.' There was no mistaking the relief in the captain's voice. 'We shall never know why she didn't blow us out of the water, unless, of course, she is making a quick getaway in the gathering darkness. This certainly has been our lucky day. And we *did* send the enemy report to base—eh, Number One?' He looked at his watch. 'Seventeen hundred. Time to put about. I for one won't be sorry. Cox'n, starboard twenty.'

The warm comfortable voice of the cox'n rose in reply: 'Starboard twenty. Twenty starboard on!'

And as the trawler described a wide circle to turn about, the captain had a long last look at the *Scharnhorst*. She was just a faint moving smudge. Some flakes of snow settled on the glasses, and when he wiped them and looked again the enemy was lost to view. 'Cox'n,' he sang out, 'sound the "secure" now.'

'Ay, ay, sir.' And at the voice the captain's grim face relaxed, picturing the broad smile of the cox'n.

'Sub, secure now.' The young Sub glanced up at the bridge at the sound of the captain's voice and grinned, giving the V sign. The

guns were covered and the hands on deck disappeared below one by one. Tea would be ready for them, and they would expect a real smack-up effort with two cooks on duty.

Number One was still on the bridge, for it was his watch, and he smiled as his eyes met the captain's. 'It's sausage and tomatoes, sir!' he laughed. 'What would you do with two cooks who produced bangers and red-lead after meeting an enemy battle-wagon?' And they laughed, a little too heartily perhaps, when the Old Man replied: 'Drown 'em!' The two men stood side by side in silence, a good friendly silence, which neither felt the need to break.

THE trawler continued her patrol all night, and in the first light the young Sub was again on watch. The wind had fallen, and the sea was quiet. Suddenly the lookout called: 'Object bearing green three o!' The boy focused the glasses on the object. It looked like a lifeboat. He decided to alter course towards it, then shouted through the voice-pipe to the C.O.: 'Sir, small boat ahead to starboard. I've altered course to bring it ahead.'

'Right, Sub, I'll be with you,' came the calm reply.

As they closed, the C.O. stared through the glasses. Then he spelt out slowly: 'LPINDI.' 'My God, Sub, so that's what they got! Rawalpindi!'

Pipes of the Gael

*'I heard the bagpipes sounding, mother,
As I came down the glen,
And scarce could I resist the urge
To march with belted men.'*

*'They've sped the fiery-cross, laddie—
You heard the pibroch's peal,
And those who bear an honoured name
Must buckle on their steel.'*

*'I heard the bagpipes sounding, mother,
They made my senses thrill,
And hordes of men with flashing blades
Were shouting on the hill.'*

*'There's war among the clans, laddie—
You heard the slogan's strain,
And many bonnie lads, this day,
Their mothers wait in vain.'*

*'I heard the bagpipes sounding, mother,
Their music made me cry,
And sullen, blood-bespattered men
In tatters passed me by.'*

*'You heard the coronach, laddie—
A tribute to the slain.
But 'tish't those who fight and die
Who know the deepest pain.'*

WILLIAM THOW.

The Greatest Show on Earth

Lord George Sanger and his Circus

RUPERT CROFT-COOKE

THE year 1795 saw Europe capitulating to the French, Pitt weary of the war and the mounting National Debt, and Lord Grenville bitterly exclaiming: 'We have no General but some old woman in a red riband.' In the autumn of that same year, two boys, probably quite unaware of these stirring events, tramped the muddy road from Salisbury to London. But recently apprenticed to a tool-maker, his time divided between the bench and his father's plough, a boy called James Sanger was running away from the farm his family had tilled for generations, to seek his fortune in London. With him was his younger brother. His hand clutched a handkerchief in which were knotted a few possessions and the money hard saved for the adventure. He was eighteen.

Travel-stained and weary, the lads were crossing London Bridge when they were startled by shouts of 'Look out! The press-gang!' and caught in the swirling jostle of a panicking crowd. The younger boy took to his heels and hid under the counter of an apothecary's shop. But James was not so fortunate. Despite a vigorous use of his fists, he was overpowered by the man-o'-war men and carried off to a government tender moored off Deptford. A few days later he was transferred to the *Agincourt*.

James served with the Fleet for ten years. His last ship was the *Victory*; his last sea fight, Trafalgar. One of twenty-six men who boarded a French frigate, he lost three fingers and had his head slashed open with a cutlass stroke. When he regained the deck of the *Victory* Nelson was whispering his historical farewell to Hardy.

During his service James had become acquainted with two Jewish brothers, pressed men like himself. The Harts had been stroll-

ing conjurors; they taught James what they knew of the 'hanky-panky.' When the Fleet returned to England and anchored in Deal Harbour, James was paid off, a grateful country granting him a pension of £10 a year. At his home near Salisbury he received no welcome. His parents were dead, and his brothers and sisters rather ashamed of the seaman home from the wars. James shrugged his shoulders and took to the road again. Fired by the Harts' descriptions of the life of a wandering showman, he invested his first year's pension in a penny peepshow which he carried on his back. His stock-in-trade were some highly coloured pictures of the Battle of Trafalgar. Such were the inauspicious beginnings of the most famous English showmen of our times—the Sangers.

JAMES made his first pitch in the churchyard where Bristol Fair was then held. A young woman in the crowd listening to his patter smiled at him, warming his heart, for he hadn't received much friendliness since his return to England. Then he remembered her face; she was a former playmate from his native village. A few weeks after, they were married and, in the course of time, had ten children, among whom were John and George Sanger.

George Sanger was born at Newbury in 1827, and was actively helping his father in 1833, having quickly learned the patter which went with the 'peepshow.' This now had twenty-six 'peep' glasses, enabling a like number of people to see the pictures at the same time. The attraction on which young George talked so glibly was 'The Murder in the Red Barn.'

Rural England in those days was still much

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the country of Fielding. The police were feeble and small in numbers, and people continued to settle their feuds with fist and cudgel. Showmen were 'rogues and vagabonds,' and toughs thought it fun and a good ending to the day to break up their shows after a fair or race-meeting, while squire and parson gave the showmen neither mercy nor justice. Life, as young George and his brother John saw it, was indeed dramatic. When George was only five he witnessed a great fight between the men of Hilt n's and Wombwell's menageries on the Oxfo d Road at Henley, in which even the freaks r ayed a part and a living skeleton knocked d wn a fat man with a peg-mallet. George well remembered this, because the caravan from which he watched the fray was pushed over and set alight, and he narrowly escaped being burnt alive. He came into contact with body-snatchers and saw Newport Fair made into a shambles by a great Chartist demonstration.

When George was still a boy, he was taken to Astley's to see the famous Ducrow. The magnificence of the costumes, the horsemastership of the equestrians, and the great glittering chandelier that hung suspended from the centre of the roof, opened a new world to the boy in the sixpenny gallery. The small conjuring-booth with which the family then travelled the roads of England, and of which he was so proud, paled into insignificance. That night he vowed that one day he would own a circus and would show it at Astley's.

His father died of cholera, his mother died, the wife of a clown died, and, saddest of all, his own young son, a first child, died of a convulsive fit in the midst of a raging snow-storm. 'There in the bitter grey weather,' Sanger wrote in after years, 'our hearts as heavy as lead, we had to mount jests and smile to win the people to our show so that our loved one might be laid decently to rest.'

But George Sanger never forgot his night at Astley's, and twelve years later he invented his 'Tame Oyster that sits by the fire and smokes his yard of clay,' which proved to be such an overwhelming attraction at Stepney Fair that, with only a small part of the profits from its exhibition, George was able to buy a Welsh pony at a price of £7. He trained the pony to tell fortunes, to talk by shakes of the head, and to pick out cards strewn on the ground.

Wintering that year in the grounds of a

public-house by the side of the river at Norwich, the two brothers, George and John, made and painted the show-front for their first circus. When they were not working on this, George taught the circus business to two nieces, a nephew, and four other youngsters. Such progress was made that George resolved to open at the Charter Fair at King's Lynn, which always commenced on the 14th February and lasted six days. They decided to charge a penny for admission to the circus, but there were a few reserved seats at three-pence. Money poured into the little show and success was assured. That was in 1853. Within ten years the name of Sanger was known throughout England and people waited and hoped all over the country for a visit from the famous circus.

IN 1871, at the age of forty-four, George achieved his ambition, buying Astley's from Batty's widow for £11,000. The purchase completed, he had the greater part of the amphitheatre pulled down to enlarge and modernise it. If he had not set his heart on realising his boyish boast that he would, one day, be the owner of Astley's, it is doubtful whether he would have risked his hard-gained money in such a speculation. Astley's had made many reputations but few fortunes. Astley's had cost William Cook £16,000; it had crashed Dion Boucicault the actor to bankruptcy; Astley's had caused Jim Harwood, the original circus Dick Turpin, to break his heart and come to grief; and even that great showman, E. T. Smith, who had so successfully exploited Cremorne Gardens, had found Astley's to be a white-elephant. But Sanger's genius changed all this, and for twenty-two years Astley's was one of the favourite resorts of London pleasure-seekers. When business was bad, Sanger would invent some such elementary publicity 'stunt' as the apocryphal escape of a dozen ferocious wolves. When they were once more caged and the Press had praised Sanger for his courage in saving the public from being devoured alive, the curious crowd came to Astley's in its thousands and set the turnstiles once again clicking merrily. It was not until 1893, when badgered beyond endurance by the ever-increasing demands and restrictions of the London County Council, that Sanger surrendered the key. Within a year the old building was demolished, and the site it once

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occupied is now covered by an extension of St Thomas's Hospital.

Besides their show at Astley's, the Sangers also presented circuses every year at the Agricultural Hall, Islington. One of the many spectacles they produced there was 'The Congress of Monarchs,' which had 200 horses, 1200 costumes, and cost £30,000. Barnum, in England at the time, was so impressed that he purchased all the properties for £33,000, and subsequently showing 'The Congress of Monarchs' in New York for two years made one of his many fortunes out of it.

ASTLEY'S Amphitheatre saw the separation of George and John Sanger. For some time there had been growing friction between them, not eased by the jealous womenfolk of their increasing families. They decided to set up their own establishment and divide the circus. This was done in the simplest of ways. One morning, the two brothers went into the stable-yard of Astley's and tossed with a shilling for each item. The winner of the toss took the lot, whether it was a lion or a trapeze, and paid over half its value to the loser. The first spin of the coin was for Old Jennie, an elephant, valued at £1200. George won. He took the elephant and John was credited with £600. The tossing went on all the morning and for the best part of the afternoon. When the shilling had been spun in the air for the last time, the two brothers had amicably divided property worth considerably over £100,000. Thus ended 'George and John Sanger's Circus,' although for many years both retained a joint interest in Astley's and the Agricultural Hall, where, at Christmas-time, the cream of the two circuses joined forces.

Meanwhile, the two brothers completed preparations for their separate circuses. George heard that John's was to be called 'John Sanger and Son' (it should have been Sons—John was the father of four boys, all of whom became circus celebrities). George had no son, so lettered on his wagons 'George Sanger and Daughters.' Then one spring morning—it was in the 'seventies—a crowd of people gathered outside Astley's. Stretched along the road as far as the eye could see was a long, an apparently never-ending stream of newly-painted and gaudy wagons and caravans, hundreds of horses and wild-beast cages. Half was George's circus, the other

half John's. The time came to make a start. The two brothers shook hands and wished each other luck. Whips cracked, the two shows moved off, John turning to the north, George to the south. Soon the two circuses were out of sight and sound; twelve years passed before they again met on the road, when there ensued an intense rivalry, which only came to an end when the two circuses fought a pitched battle at Wolverhampton.

EVEN as a boy George had been known among show-people as 'Gentleman George' and his own father had always referred to him as 'His Lordship!' He took great pride in his appearance, and when the peepshow gave way to the conjuring-booth, George appeared in Hamlet costume—black velvet tunic blazoned with black bugles, a hat of the same material adorned with three enormous ostrich-feathers, and velvet-topped Hessian boots. He spent an hour daily curling his long hair. The role of a circus proprietor demanded more dignity, and for the last forty years of his life he was invariably seen in public dressed in a long-tailed black coat with velvet collar, while a thick gold chain, from which was suspended a giant fob, stretched across his waistcoat. He wore a flower in his lapel, a silk handkerchief peeped from his breast-pocket, and his tie was invariably white. Surmounting all was a top-hat set at a jaunty angle.

George Sanger elevated himself to the peerage when he fell foul of the famous Buffalo Bill. The two met in the law courts, where George had to follow the Honourable William Cody in the witness-box. George got the better of the encounter, and, with his usual flair for publicising his successes, had a handbill printed with the details of the case. While preparing this, and referring to the evidence to refresh his memory, he became irritated by the constant repetition of 'The Honourable' in front of Cody's name. 'Dang it!' he suddenly exclaimed, 'I can do better than that. If he's an Honourable then I'm Lord George Sanger from this time on.' He was, and 'George Sanger and Daughters' became the more familiar and grandiloquent 'Lord George Sanger's Circus.'

The effect of this on the other circus proprietors of the time was amusing. John Sanger, not to be outdone by his brother, also became a Lord, Cooke became Sir John

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Henry Cooke, Bob Fossett was transformed into Sir Robert Fossett, and the acrobat head of one of the smallest of the tenting shows went one better than all of them and styled himself King Ohmy! Lion-tamers became captains, and even grooms hinted at aristocratic connections.

In the summer of 1899, George received a command to appear before Queen Victoria at Windsor Castle with all his horses, wild beasts, wagons and chariots. The Queen, sitting in her carriage, was so delighted with the parade that she had to see it all again. George was presented to her.

'So you are Mr Sanger?' the Queen said.

'Yes, Your Majesty,' George replied.

Then, with a smile, the Queen added: 'Lord George Sanger, I believe?'

'Yes, if Your Majesty pleases,' George managed to stammer.

'Very amusing,' remarked the Queen, 'but I hear that you have borne the title very honourably.'

GEORGE toured his 'Greatest Show on Earth' all over Europe, and gave Disraeli a magnificent reception at the railway-station at Verviers when that statesman was triumphantly returning from the Congress of Berlin of 1878. It was even said that the showman suggested to Disraeli that cynical catch-phrase 'peace with honour,' which he flung with such effect in the House when he faced the opposition.

The latter half of the 19th century saw the tenting circuses at the height of their glamour and popularity. In those days the names of Sanger, Hengler, Ginnett, and Bostock were household words, and the coming of a circus was a red-letter day in any village or town, the streets of which were always thronged for the slow procession of the Circus Parade.

Lord George prided himself on his parade. It must have been a grand sight. First the mirrored Britannia tableau, three tiers high, borne in a wagon weighing ten tons, with carved and gilded woodwork, and drawn by thirty cream horses. Surmounting the tableau was Mrs George Sanger arrayed as is Britannia on a penny, holding with her left hand a shield painted with the colours of the Union Jack, and with her right, a golden trident, while crowning her head was a Greek helmet, and, crouched at her feet, Nero the lion and a lamb. This was followed by a string of camels, a

herd of elephants, two hundred and fifty historical characters on horseback, and a great chariot which contained the band, who blew furiously into their brass instruments. Angels, sirens, Neptunes, and mermaids disported on the sides of the chariot among foamy seas and palm-fringed coral-reefs; its gilding glittered and dazzled in the sun, while the bandsmen were magnificent in uniforms of white and gold. This chariot was drawn by forty horses, ten teams, four abreast. Finally came the cages of the wild beasts; grooms leading zebras, llamas, and ostriches; and the performers in their ring costumes mounted on prancing thoroughbreds.

The First World War nearly killed the travelling circus. It certainly killed the old-fashioned parade; modern traffic conditions forbade its slow progress through overcrowded streets. At that time the gilt was scraped from the surviving Sanger tableau wagons and sold for a few hundred pounds. The wagons themselves, with their wonderful carvings, for years stood neglected in the fields of the Sanger winter-quarters at Horley, rotting to pieces, each year sinking lower and lower in the ruts they made for themselves in the hedgerows. Now those winter-quarters have been disposed of, but possibly the wagons are still there.

IN 1905 Lord George sold his circus and most of his animals at public auction. It was an astonishing sale. If an old-time performer bid for a horse, Sanger would cry: 'Let him have it, he used to ride it!' Sanger was now seventy-eight, beginning to feel old, missing intolerably the companionship of Nell his wife, upon whom he had always rather pathetically depended. Since her death his old fire and zest for the publicity and the excitement of the circus had died too. When he had married her she was the star of George Wombwell's Menagerie, 'Madame Pauline de Vere, the Lady of the Lions.' (Miss Bright, her cousin, had taken her place in the cage and almost immediately been killed by Ellen's favourite tiger.) Her task had not been easy, for George was a great showman, but a poor business man. He was careless with money and had a horror of book-keeping; indeed, there never was any book-keeping on the Sanger show in those happy days. Nell always handled the money and looked after the business side of the circus, and for that

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George was deeply grateful. Nell adored George, his audacity and his dramatic personality.

On one occasion when he arrived home at Margate, he suddenly remembered he had left a bag under the seat in the waiting-room at the railway-station. A man was sent to fetch it. When he returned his face was streaming with sweat and he remarked that the bag was very heavy. 'Yes,' said George. 'It would be. There's over £500 in it.'

George often designed the dresses for his spectacles, and would even cut them out if the wardrobe mistress did not understand his ideas. He loved to sit for hours sewing spangles on to the costumes. He was deeply religious, yet, when angered by the slowness of his tent-men, would swear fluently at them. 'God damn your eyes!' was his favourite expression, but he would qualify the blasphemy by adding, under his breath: 'God forgive me for swearing!'

With a fortune of £30,000, Lord George retired to Park Farm, East Finchley. One Tuesday evening at the end of November 1911 he was sitting in front of his fire with Harry Austin, one of his old performers, who had just left hospital. Austin was reading aloud from the newspaper when suddenly they were interrupted and startled by the appearance of Herbert Cooper, a recent

employee of Sanger, who imagined he had a grievance against Austin. Cooper attacked Austin with an axe and felled him with a blow. A second blow caught Sanger on the temple. The old showman toppled backwards, his head hit the brass fender. He must have died instantly. For days the newspapers were full of the affair. Lord George had died in a blaze of publicity which would have been sweet to him in his circus days. It continued for days, until the murderer's body was found in a railway-cutting near Highgate. Harry Austin miraculously recovered.

Lord George Sanger took his place in his last parade in pouring rain. Bareheaded crowds silently watched the funeral cortege pass from Finchley to Holborn Viaduct Station. At Margate, where he was buried, the shops closed, blinds were drawn, and the cabbies tied black bows to their whips. The whole town went into mourning.

Lord George and Lord John are both dead. John's sons, John, George, William, and James, are dead. His daughter, Lavinia, a fine *haute école* rider, is dead. But the old Sanger circus, now peopled with grandsons and grand-daughters of Lord John, still winds its way, spring and summer, along dusty English roads and lanes and pitches on the old circus-grounds. The show, which was the Greatest Show on Earth, goes on.

City Worker

*If I can capture
Some little glimpse of beauty every day:
A stretch of trim, green lawn
Where pigeons idly strut;
Tall plane-trees in a quiet square
Where misty sunlight filters through;
The lazy river sliding greenly down
And out to sea; a flash of gulls' white wings;
The evening lights a-glitter on the water
Like shifting, wind-tossed stars;
A blood-red sunset at a street's end spilled;
An almond-tree with blossoms gaily hung
Against a sooty wall;
A dreaming, grey old church, withdrawn
Into the sleep of centuries—
If I may cull these flowers of loveliness,
My heart can break its prison-bars
Of irksome moil and maze,
Knowing the day then goes not unfulfilled.*

MALCOLM HEMPHREY.

Flying Saucers—Fact or Fiction?

LANGSTON DAY

ON 24th June 1947 Kenneth Arnold, a business man of Idaho, while flying his own plane to Washington, saw nine disc-shaped objects in chain-formation flying at about 1000 miles an hour over the Cascade Range. Already that year there had been stories of some strange, unknown type of aircraft seen in the sky, but the reports had been mostly ignored. Arnold, however, was an experienced pilot and a competent observer, and his story created something of a stir.

Early one morning a fortnight later, William H. Rhodes, of Phoenix, Arizona, took two photos of a flying disc circling over the city, and these pictures reproduced in the Press clearly showed the shape of the object, which looked like a saucer with a hole in the centre of it and a concave indentation at the rear of it. This caused a sensation, and there is reason to believe that immediately afterwards the Press in America was given a strong hint to soft-pedal the subject. At the same time the United States Air Force formed an official investigating body panelled by air and rocket experts, astronomers, aero-doctors, physicists, and others, who carefully went into the matter. This was Project Saucer. Whenever a saucer was reported, representatives were sent to examine the evidence on the spot. Everything possible was done to get to the bottom of each case. The evidence of one witness was compared with that of another. The speed, proportions, and general description of a flying object were checked against known aerodynamic laws. If a pilot reported a close encounter with a saucer, his machine was tested with a Geiger counter to see if it was radioactive.

IN the beginning of this year Project Saucer revealed that it had analysed 375 incidents of 'unidentified flying objects,' of which 341

had been explained to its satisfaction. For the remaining 34 there was no 'apparent ready explanation.' Some of these 34 incidents were reported by seasoned pilots who during the War were experts in aircraft recognition, or even by guided-missile observers, who charted the flight of the discs with telescopes and theodolites. It is very unlikely that the incidents will ever be explained without taking into account possibilities which matter-of-fact people refuse even to consider.

One of these mysterious incidents occurred in the early hours of the morning on 24th July 1948. Observers at the Robbins Air Force Base, Macon, Georgia, were startled by the sudden appearance of a huge torpedo-shaped craft, without wings or fins, which sped over the aerodrome trailing a long streak of orange-coloured exhaust. An hour later, round about 3 a.m., two pilots, Captain C. S. Chiles and J. B. Whitted, en route for Atlanta in an Eastern Airlines D.C. 3, saw what may have been the same airship ahead of them. They described it as about 100 feet long, torpedo-shaped, and wingless. It came down as if to look at them, then zoomed upwards passing within 700 feet of them. As it passed, the two pilots saw what seemed like a navigation-cabin, two rows of lighted 'windows,' and something which might have been the snout of a radar-pole. But what struck them still more forcibly was the presence of a blue glow, like a fluorescent strip, which ran along the fuselage, and a vivid exhaust of reddish-orange flame. As the craft zoomed up with a great burst of flame from the rear, it rocked their D.C. 3 with its backwash. Scarcely believing his eyes, Chiles questioned some of his passengers. Most of them were asleep, but one man who had been awake said he had seen a brilliant streak of light flash past his window.

Earlier that year, on 7th January, a saucer,

FLYING SAUCERS—FACT OR FICTION?

calculated to measure 250 feet in diameter, was seen over Madisonville, Kentucky, and a quarter of an hour later it was observed 90 miles away hovering over the Godman Air Base. Colonel G. F. Hix, the commanding-officer at the Base, ordered a radio message to be sent to a flight of three F-51s, which were just then passing over Port Knox, directing them to make contact with the object. Rather more than an hour later, Captain T. F. Martell, the leader of the flight, radioed that the saucer was directly above him and that he was closing in to take a good look at it. 'The thing looks metallic,' he said, 'and it's tremendous in size.' The three F-51s chased it for about 25 minutes, but it was too fast for them. Finally two of them landed, and Martell alone continued the pursuit to round about 20,000 feet. Then his messages stopped. His body and the completely disintegrated wreckage of his machine were afterwards found scattered around Fort Knox. How he met his fate is still a mystery. It is suggested that he blacked out.

PROJECT SAUCER investigated incidents at the rate of about three a week, and from the hard core of the evidence they collected they could form a more or less coherent picture. Several types of aircraft never before seen were navigating our atmosphere at various altitudes ranging from a few hundred feet to the extreme limits of visibility. One of these types was a 'flying cigar,' without wings or fins; another was a saucer-shaped object between 100 and 250 feet in diameter, made of some metallic composition; and a third was a tiny disc about a couple of feet in diameter, which seemed to be a remote-controlled observing instrument. Huge stationary shadows thrown on to moving clouds by something behind them, seen in Newfoundland, suggested a fourth and much bigger kind of craft.

All these flying objects are absolutely silent and appear to be powered by atomic energy. Their speeds when flying low are not very different from those of our own jet-planes, but at great heights, where there is little or no atmospheric friction, their speeds are astronomical. What is still more significant, their motive force, as calculated from their observed powers of climbing, shows that they are far ahead of anything known on this earth.

One morning in April 1949 five observers

on the White Sands Proving Ground, New Mexico, were watching and recording with telescope and theodolite the behaviour of a stratosphere balloon, when a flying saucer came into the line of view. It was visible for about 60 seconds, and in that precious minute its exact course was charted. It measured 105 feet in diameter and was travelling at about 5 miles a second, or 18,000 miles an hour. Its altitude was 56 miles. Towards the end of its observed flight it zoomed upwards, climbing 25 miles in 10 seconds. This represents a *minimum* motive force of twenty times the pull of gravity. Not only could no scientist or engineer on earth harness such a motive force, but no human being could support the physical strain of travelling in a machine powered by it.

Such evidence seems to rule out the theory of top-secret weapons being tried out in America, or of some wicked foreign power attempting to fray our nerves with a mysterious exhibition of atomic weapons. Saucers have been seen more than once at White Sands, and also at other testing grounds in America. One day observers at White Sands spotted two 20-inch discs apparently taking note of a naval stratosphere rocket. This rocket was travelling at the respectable speed of over 2000 feet per second, but the two discs chased it, overtook it with ease, and then sailed away!

A similar small disc was seen speeding over the aerodrome at Fargo Airport at about 9 p.m. on 1st October 1948. It had a circular light, which constantly flashed on and off, and which seemed to be about 8 inches in diameter. Lieut. G. F. Gorman, a National Guard pilot, who was about to land in his F-51, at first took it for the tail-light of a plane, but as it flew over a lighted night-football ground he was amazed to see that it was merely a flying light. With a machine capable of flying 400 miles an hour he gave chase. Nothing stranger has ever been reported to an investigating commission. It was like trying to chase some unearthly swallow. The light banked and zoomed far too steeply for his F-51, and it also easily outclimbed him. No sound or exhaust trail was noticeable, and, despite its minute size, the light was so manoeuvrable that it was hard to believe it was not piloted.

IF the reports above detailed are accurate, the logical implications are so strange that

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many people in self-defence attribute them to imagination, or something worse. They do not attempt to explain why dozens of pilots and other men with high professional reputations should suffer from hallucinations or be willing to perjure themselves with no obvious motive.

'But why always America?' others ask. Wingless torpedoes, flying saucers, have, however, been observed in the Low Countries and Scandinavia, in Rumania, Turkey, Newfoundland, Paraguay, and elsewhere. They have also been seen for at least 175 years past. One of the most extraordinary of such cases on record is that of a huge, luminous disc reported by the captain and third mate of s.s. *Patna* as having been sighted on 28th December 1883, whirling under the waters of the Persian Gulf. Another case is that of several luminous flying objects viewed just before sunrise at Kattenau, in Germany, on 22nd March 1880.

In a report which it issued, Project Saucer, while discountenancing any possibility of the saucers being secret weapons, seemed to leave open the chance of their being space-ships from another planet. Quite a number of intelligent people have been driven to the same conclusion, especially engineers and atomic experts who understand what the recorded observations really mean. Some of them say, in effect: 'I can't believe such things have been observed, but if it is the case that they actually have, then they must be atomic-powered space-vessels of non-earthly origin.'

Aero-engineers are impressed by the peculiar shape of the saucers. Self-deluders or hoaxers would be unlikely to imagine a type of spaceship which fits in so well with advanced ideas about interplanetary travel. If, as seems probable, these vessels are driven by some intense motive force which is discharged through nozzles, the speed, tilt, direction of flight, and so on, could be controlled by altering the pressure in these nozzles and their angles of inclination. Even the temperature inside the vessel could be regulated by adjusting the tilt towards the sun. Such vessels may well serve as models if and when the time

arrives for our own explorers to adventure into extra-terrestrial space.

Commander Robert B. McLaughlin, a senior officer of the White Sands Proving Ground, has put forward the idea that saucers are powered by radiation-pressure motors, and that the motive force is the push exerted by light. According to his theory, the motor would be something like a gigantic fluorescent lamp, having an inner core filled with fissionable gas and a surrounding outer core containing fluorescent material. The fissionable gas would activate the fluorescent material and so produce immense quantities of light—enough, in fact, to exert a very strong propulsive thrust. This thrust could be varied by increasing or decreasing the amount of fissionable gas in the inner core.

All such theories assume some extramundane intelligence which is responsible for these saucers, but many people find it hard to believe that the other planets in our solar system are inhabited. The climatic and atmospheric conditions on Mars, Venus, Jupiter, and the rest are different from our own and they cannot imagine beings built on different physiological plans. But chemistry is far more elastic than is generally realised and Nature is quite capable of creating living creatures to fit what for us would be an impossible environment. It is quite possible that all the planets in our solar system, with perhaps the exception of Mercury, which appears to be more like a moon, have an organic life and a race of beings which correspond to the human race.

If this is so, it is not inconceivable that the inhabitants of another planet are already doing what we ourselves plan to do in the future, namely, exploring the solar system. Engineering experts think that the observed performance of these saucers represents an advance of several centuries on our own scientific knowledge of to-day. If we cast our minds back to the 17th century and try to imagine how our ancestors would have regarded a modern jet-plane we should not be surprised at machines which can travel at 18,000 miles an hour and climb at the rate of 2½ miles a second.

Assignment

HERBERT L. PEACOCK

GARSTEN looked up at the clock above the restaurant door. It was 7.20. His glance travelled down to the empty seat opposite him reserved for his unknown contact and then back to his newspaper. He hardly considered himself a spy. He was the well-paid go-between. He recoded the material, posted it or left it in places for collection. So far, it had been automatic, simple, and—impersonal. But in ten minutes' time someone would be sitting opposite him. He told himself that there must be very good reasons for this change of method. And everything had gone smoothly in the past.

Garsten took out a gold cigarette-case. He opened it. The secret which held the fate of thousands, perhaps millions, of lives was in the third cigarette from the far side. Garsten nonchalantly selected the fourth and lit it. The action steadied the fringe of nervousness which had begun to worry him.

His thoughts kept turning to Helena. He had at first arranged to dine with her tonight. Afterwards they would have danced or gone to the theatre. And he had intended to tell her for the first time how much he loved her. He had looked forward eagerly to that exquisite climax to their friendship. But the message had come, and he was obliged to phone her with a trite business excuse. She answered—he smiled when he heard her charmingly accommodating white lie—that she was about to call it off, herself; she also would be working late with her firm. So they had made another date. But Garsten had felt a deep, disquieting frustration. The two worlds had indeed clashed painfully in his consciousness.

GARSTEN watched the hand of the clock move over the last minute to 7.30. He

put down the newspaper and pressed out his cigarette. Outside, the street-cars and taxis were unloading their evening passengers. People were entering the restaurant more frequently now, and Garsten watched them. He knew it was quite wrong to watch anybody, but a curious compulsion kept bringing his eyes back to the door. He found himself trying to imagine what the fellow would look like. Someone ordinary, inconspicuous, no doubt—a stock, orthodox type.

Then his heart stood still. The door of the restaurant swung back and Helena came in. He made an impulsively-futile movement to get out of his seat before she saw him. But she looked straight towards his table. There was a look of surprise—almost amazement—on her face as she came over to him and, despite the reservation-card, took the seat opposite. Garsten saw in a flash the complications that might arise if she were still there when his contact arrived. He would probably have to invent a name for him—and other plausible associations. How devilishly hard and dangerous such a simple bit of camouflage suddenly appeared!

But she was smiling at him now as she had smiled so many times before. He found himself drawn into her laughter at the coincidence that they should have come to this same place of all the many hundreds in the city. And their friendship was such that explanations of any kind would have been clumsy, uncalled for.

But during the next few minutes Garsten saw the delicate oval of her face through some curious mental haze. He heard her speaking, and he heard his own voice reply. And all the time he was watching—mentally, without looking at it—the hand of the clock climb away from the appointed hour of 7.30. And no one came.

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Then he saw clearly how her presence was enough to prevent the assignment working out as the message had ordered. There might be the devil to pay for this! The fellow was probably in the place now—and unable to contact him!

But someone was coming towards them! Yes, that must be he! Just the type—a little, podgy, shiny-faced fellow, inconspicuously ordinary. Garsten appreciated that Helena was watching the man's approach, too, in the wall-mirror that faced her. He realised, vaguely, that there was a curious anxiety in her face. Garsten had already got a name ready for the introduction, when the man stopped and sat down at another table. Garsten drew in his breath and sat back.

Garsten heard Helena resume the conversation. It was all about the date they had made. She was talking animatedly about the enthusiastic reviews of the play they were going to see—and about other things. Garsten knew for certain that she loved him. There was no mistaking the look in her eyes and the subtle emotional undertones of her voice. But it created within him as never before a painful sense of her beauty, charm, and devotion against the sordid background of his other activities. She must never know—never!

GARSTEN had no inkling of how the first fantastic promptings came into his mind. Perhaps he had been unconsciously puzzling about the way Helena had taken the reserved place. Perhaps the lack of explanation from her impinged somehow upon his own motives for not wanting to explain. Then there was the occasional dark uneasiness which crept into her eyes—especially when the little shiny fellow had moved towards them. The terrible possibility was almost too much for Garsten to bear. He felt the appalling doubt begin to wrench his mind apart.

He was looking away from her when he asked the question: 'You were expecting to

meet someone here, Helena?' He dared not look at her. But his tone was unmistakable in its implication, its half-frightened searching. And then he felt the change come over her. He could almost feel the hard, overwhelming incredulity of her gaze. He knew then that she had more than loved him—she had idealised him. The sharp, rasping intake of her breath cut through him like a knife. He turned towards her. Her hands were clasping and unclasping spasmodically with the incredible shock of the realisation.

She was answering his question now. 'Yes. I was waiting for someone quite unknown to me. I thought—I thought a mistake had been made about the reservation. You—you, too, were expecting to meet . . .' Her voice trailed away into the disillusion that enwrapped them both like a suffocating pall.

Even then Garsten hesitated before the ultimate proof. But at last he took out the cigarette-case. He opened it and held it towards her. His eyes were hard as hers now, his lips set, his hand rigidly steady. He watched her delicately-manicured fingers hover for a moment above the case. She took the third cigarette from the side towards her. Garsten saw the slick substitution of another as she thrust her hand into her bag for the lighter.

A LITTLE later he made his way beside her to the door. Their illusion was shattered. He knew that now it was just a hard and formal business—to walk away from one another—and that would be the end!

Outside, Garsten realised that the little, shiny, podgy man had followed close behind him through the door. He understood it all when he saw Helena give them a signal. In an instant, the little fellow seized Garsten's left arm, another detective moved up swiftly to his right, and they hustled him into the police-car waiting at the kerb.

Take Comfort

*I have seen thwarted mornings
Bring golden afternoons,
And men from wooden cradles
End up with silver spoons.*

*Take comfort from old proverbs,
Whose well-worn phrases say
That Time will have revenges
And every dog his day.*

E. S. GOODWILL.

Thomas and Company

British World-Pioneers in Iron and Steel

MAURICE SCHOFIELD

THE present high efficiency and flourishing state of our iron and steel industry are but a fitting consequence of all that British pioneers have contributed to iron and steel developments in the past. No apology need be hinted at in recalling how, within two centuries, old iron, metal of the ancients and, in the view of Samuel Smiles, a 'mainspring of civilised society,' has been transformed to the modern steels of this age almost entirely by British endeavour. No apology, since we have been either too modest or too unappreciative regarding our record. We have left it to Europe to honour men of our country for deeds of far less import. At Mentone, for example, the acknowledgment is for the mere patronage of a health-resort; at Offenbach, it is a statue to Drake as the introducer, according to the Germans, of the potato into Europe. But then, in contrast, we may go to those extensive works at Corby in Northamptonshire and appreciate that significant plaque set up by German engineers to commemorate 'the work of the two great pioneers, Sidney Gilchrist Thomas and Percy Carlisle [correctly Carlyle] Gilchrist, who, by their perseverance and achievements, earned the undying gratitude of all who are connected with Steel Industry and Agriculture.'

SIDNEY GILCHRIST THOMAS and Percy Carlyle Gilchrist were cousins, and the work of the first, born a century ago, constitutes one of the highlights in the striking picture of British iron and steel accomplishment from 1750 to the present day. 'At the coming of centenaries we like to remember the great men of the past, not so much by way of historical exercise, but that we may see precisely where, in relation to their achievement, we stand at

the present time.' Aldous Huxley's words are appropriate, since we see to-day how that star, born in the firmament of iron- and steel-making in 1850, came as a promise, an indication that all that the Darbys, Huntsman, and the rest had done from 1750 would not be other than a prelude to yet greater successes by British men. We see what a smile from fortune this was that at the time when Bessemer was struggling with his process, a process which would have been severely limited in scope because of phosphorus which embrittles steel, there should be born one who became a London police-court clerk who studied chemistry by night, who extracted this phosphorus impurity in steel-making and converted it to beneficial phosphate for agriculture. The outstanding success of Thomas is measured by contrasting the one-time case of those French, Belgian, and German phosphatic ores which, like our Northampton and Cleveland ores, were useless for steel-making before Thomas's day, with the 250 million tons of such ores now mined and smelted each year, to say nothing of the enormous tonnage of basic slag produced at the same time for agriculture.

This centenary, then, is a moment for assessing all that the glorious company of British iron- and steel-makers, with names but vaguely remembered by the layman, effected in a field so different from the usual chessboard on which moved kings and queens, knights and bishops. The achievements form a section of our economic history as absorbing as one could wish for, with no need for legendary additions to adorn the tale.

There is no necessity to inquire into the authenticity of the story that Abraham Darby the First obtained from the Dutch his secret process for casting iron pots, and then stopped

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up the keyhole of his foundry door when he himself was casting them. If one likes facts to rival fiction, there is no occasion to look further than Thomas burning the midnight-oil after the depressing routine of the Thames Police Court clerking, and in the end accomplishing what experienced metallurgists had failed to do. Or go back to that other Abraham Darby, who caused Coalbrookdale to become a cradle of the world's iron industry by first using coke to replace the former charcoal in the blast-furnace; the grand old man who spent days and sleepless nights on top of his furnace, and was then carried sleeping, yet in triumph, by his men to his home. We, and Soviet Russia, have forgotten that the great iron and steel city of Stalino was one-time Yuzovka or Hughesovka, created, a fore-shadow of a new Russia, when Hughes's Works lit up the Don Basin area by night. John Hughes, ironfounder and son of a Merthyr Tydfil blacksmith, had originally gone to a Millwall iron and shipbuilding yard, had produced the Millwall shield, a piece of resistant armour which interested the Russians, and was invited to Russia to set up a company supplying with iron all Russian railways from St Petersburg to Samarkand. Hughes's Works, with 3000 men engaged, transformed a vast steppe into an important industrial region, outstripping, with its ironworks dotting the landscape, the Urals of the time.

BEFORE Gilchrist Thomas came on the scene, the British epic of iron and steel had been marked by a century of endeavour both in Shropshire and in the North. Round about 1750, Thomas Pritchard of Shrewsbury was scheming to use cast-iron in his architecture—that is, iron for constructional work, such as bridges, and, later, for railway-station spans and for the giant Crystal Palace, erected, as it turned out, long after Pritchard had gone.

The ensuing years of Shropshire pre-eminence in iron proved a saga in itself. To the Coalbrookdale area came the Darbys—three Abrahams in turn, and the Reynolds, the Cranes, and that fantastic figure, John Wilkinson, the 'Monsieur Weelkinsong' who, the French said, 'taught them to bore cannon in order to give liberty to America.' In a builder's yard at Lyons, France had almost taken a lead in bridge-building when experimental bridge-spans were cast. But the French lost their nerve, lost confidence in

anything but timber—and then only to hear of the world's first iron bridge at Coalbrookdale. In bridges to-day the wonder is not so much at Sydney Harbour's vast structure of a modern steel age, but at the Menai Bridge, cast in days of iron, and cast at Shrewsbury of all places. And so, too, to appreciate Wilkinson one should ignore such trivialities as his iron coffin carried about with him and proving too small when he died. The 'Weelkinsong' who created Nantes and Le Creusot, which in a later century Britons had to destroy to counter a Nazi tyranny, the Wilkinson in his happy days at 'Creusal' or 'Creuzot,' writing to Watt: 'The engine is in operation. The Frenchmen are delighted. . . . I wish you were here'—that was the man from Cumberland who bored cylinders for Watt's engines and the barrels of the Bersham cannon, and that is the Wilkinson we should remember.

Meanwhile, in this period before Gilchrist Thomas, other pioneers, all British, were laying other foundations for the world's iron and steel industry. Benjamin Huntsman, mechanic and clockmaker of Doncaster, had been troubled with inferior steel for his clocksprings; hence he set out to 'purify' raw steel in a crucible process, melting with fluxes which even included broken bottles. Huntsman produced his steel at £50 to £100 a ton on a relatively small scale, yet, despite the high cost, the product represented an advance in steel for instruments and edge-tools. This Doncaster man made a fortune, melting by night and pledging his workmen to maintain secrecy. He refused the Fellowship of the Royal Society; nevertheless he had some science in him, using the method of trial and error, since after his death several castings in various stages of imperfection were dug up. Huntsman had buried his early failures!

Soon after Huntsman, Henry Cort, brick-maker's son, was successful in ironfounding rather than in steel, producing shanks, arms, rings, and anchor parts for the navy, for he himself had been a navy agent in the Strand. Cort's reverberatory furnace was the forerunner of the 4500 puddling-furnaces in use in this country in the next century. It was a Lord Sheffield who claimed that Cort's inventions, allied with those of Boulton and Watt, 'if they should succeed, would be more advantageous to Britain than the possession of the thirteen colonies of America.' Succeed they did, although Cort, in contrast to Huntsman, died in poverty.

THE period of Thomas's birth saw the beginning of the Steel Age, since Huntsman's effort was on a limited scale. In 1840 there was introduced into steel the element manganese, an essential to such an extent that not a single ton of steel is produced without it. Josiah Marshall Heath had studied chemistry and steel-making while in service with the East India Company; hence his introduction of 'carburet of manganese,' made from carbon in tar and manganese ore, an addition to the steel bath brought here by Heath's agent, Unwin. Heath, like Cort, got little for his discovery, and this after fifteen years of litigation and the rejection of his claim. History has reversed that decision.

Then Bessemer came on the scene with his vigorous process for burning out sulphur, phosphorus, and excess carbon from steel by means of a powerful air-blast forced through the molten metal in the converter. Bessemer's innovation was born of ideas for improving steel for ordnance, yet the British government would have nothing to do with his proposals.

At this point it is appropriate to stress that the Bessemer process might never have come to steel-making but for Louis Napoleon, whom the modern historian often refers to as a mountebank. The historian of science and technology would certainly differ from that view, even if we consider only Louis Napoleon's championing of beet-sugar, his support of Von Lenk's experiments with guncotton, his own dissertation on the voltaic pile, read before the Academy by the eminent Arago, and his interest in Pasteur's work. It is true that before he calmly walked out of the Ham fortress in broad daylight, that day when he donned a workman's clothes and put a ladder over his shoulder, he had failed in his chemistry studies under the tuition of Monsieur Acar, the local pharmacist. Nevertheless, when the French artillery-commander asked for guns of greater strength—a request which was to bring an industrial revolution—it was Louis Napoleon who encouraged the dejected Bessemer after that 'lonely journey back to Paris, that cold December night.'

Bessemer's paper was read in 1858 before the British Association at Cheltenham, the outcome being that steel could be produced at £6 instead of £60 a ton. And yet Bessemer's initial success was with pig-iron derived from hæmatite or ores almost free from phosphorus. With phosphate ores the tale was very different: 'The transition from what

appeared to be crowning success to utter failure well-nigh paralysed all my energies,' wrote Bessemer. The press proved rather critical at this point, referring to 'a brilliant meteor which had flashed across the metallurgical sky, and had now fizzled out in a train of sparks.'

GILCHRIST THOMAS not only enabled Bessemer's process to be generally applicable to a vast potential of iron ores, but also found his invention of a basic lining to be just as practicable in the now more widely used open-hearth steel process. A Dulwich College boy and then a junior clerk at the Thames Police Court for twelve years, one who began attending some lectures at the Birkbeck Institute and heard a lecturer state that 'the man who could eliminate phosphorus in the Bessemer converter would one day make his fortune'—such was the beginning. Hearing that remark was the only piece of luck which came to Thomas, in contrast to the many 'lucky accidents' which have brought discoveries. The rest was genius as defined by Edison: 'one per cent inspiration and ninety-nine per cent perspiration.'

Thomas took a first-class in the School of Mines examination, was offered a post as brewery chemist, which he refused since he was a teetotaler, and went on with his police-court clerkship, his dreary monotonous job, by day, often doing without lunch so that he could study and write in the interval. In his top-floor room at Sussex Place he had a rough semblance to a laboratory; he tried even to emulate a Bessemer reaction in a homemade converter set in the fireplace. Fortunately, his cousin, Percy Carlyle Gilchrist, had become chemist, first at Cwm Avon ironworks, then at Blaenavon, so that when more practical trials of basic linings had to be made, the opportunity became available. Thomas died at 35, the strain of his dual role of clerk and chemist proving too much. But there remains the great deed which lived after him—the basic process for steel, now used for nearly ninety per cent of the world's total; this and, with it, the production of vital phosphate fertiliser.

SINCE Thomas's day this British leadership has been well maintained, as evidenced by two examples in alloy steels. There came a

day when Sir Robert Hadfield—then 'young Hadfield' in his father's works—was looking for resistant steel for tramcar wheels which would grind their way up those Yorkshire hills. Hadfield thought of high-manganese steel; he found thirteen to be his lucky number, with 13 per cent manganese proving superior.

A second triumph is seen in stainless steel, in the urge to put an end to the taunt that with all man's boasted progress he had only got three years ahead of nature, since one quarter of laboriously-extracted iron returned to oxide or rust each year. But Harry Brearley,

a blacksmith's son who was hardening nails in the kitchen-fire as a boy, began trying to etch specimens of steel with the usual etching acid employed in testing. He found a steel resistant even to this. Brearley had opened an age of stainless steel with his chromium-steel made into table-knives, which he distributed to friends. All these friends reported later that none of the knives had rusted. Brearley had first made rifle-barrels; but these became cutlery instead, this new version of 'swords into ploughshares' adding yet another highlight, another chapter to this saga of the British iron- and steel-makers.

The Romance of the Village Church

VIII.—Churchyards

ARTHUR GAUNT, F.R.G.S.

NOWADAYS our churchyards are so widely regarded as hallowed spots that their use for secular purposes would certainly arouse strong criticism. True, there are some churchyard customs observed to-day which outwardly seem to have little connection with the Church, but a study of their history usually reveals that even these rites originated as religious ones, or that at any rate they had religious significance throughout many decades.

For instance, the ancient practice of 'clipping' the church by joining hands in the churchyard and dancing round the building, a proceeding still carried out at Painswick, in Gloucestershire, and enacted at numerous other places until the middle of last century, was for a long period doubtless looked on as an expression of affection for the venerable edifice, even if some authorities do believe that the custom in its earliest form was part of a heathen Roman festival.

Indeed, the story of the immediate environs

of the village church is an entertaining one. It goes back to pre-Christian times; it concerns many aspects of village life in bygone days; and despite the present-day use of these spots as last resting-places a certain amount of grim humour is to be found there.

Here and there in Great Britain, and perhaps most particularly in Wales, circular or oval churchyards surrounded by a road are to be seen. From the fact that the Celts favoured a circular form for their sacred enclosures, it is not unreasonable to assume that such churchyards have a history older than that of the church they encircle. Support for the view that the first village churches were built within the pagan enclosures, and not on a new site, is provided by a letter written by Gregory the Great to Abbot Mileto in the year 601. It instructs that heathen temples themselves should not be destroyed, but their idols removed and the buildings converted into Christian meeting-places.

Where no heathen shrine existed, it was

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usual to set up some Christian symbol round which the adherents of the new faith and prospective converts might gather. Such symbols often took the form of an inscribed pillar or preaching-cross, and, although some examples do not now occupy the spot where they first stood, others are still to be found in churchyards. One of the most notable of these pillars stands in the churchyard at Halton, Lunedale, Lancashire. Its historic value lies largely in its carvings, some of which are of pagan origin, while others date from the early days of Christianity in Britain. The relic is thus a souvenir of what is known as the Pagan-Christian overlap period.

Middlesmoor churchyard, Nidderdale, Yorkshire, contains another ancient cross, generally believed to have been raised by St Chad, the champion of Celtic Christianity. A Saxon cross is to be seen close to the village church at Prestbury, Cheshire, and a fine specimen in Nottinghamshire is at Stapleford, a place which has to-day outgrown its history as a small rural village. The cross here stood in the village street for a number of years, but it has now been erected on its rightful site in the churchyard. It probably existed before there was a church at Stapleford at all, and was used as a preaching-cross before the Saxons built the original church of timber and wattle.

ALTHOUGH churchyards, or enclosures around the churches, go back to the very earliest days of Christianity in this country, not until the 4th century A.D. did they come to serve as places of interment. Indeed, in the 15th century it was still uncommon for a man of distinction to be buried outside the church at all. A few exceptions, such as the altar-tomb of Lord Dacre, the Lancastrian leader, in Saxton churchyard, Yorkshire, do exist, but the custom did not become widespread until the early 18th century.

The oldest memorials in a churchyard are invariably on the south side of the church, the darker northern side being used last of all, since it was considered to be the abode of the Prince of Darkness. This fear of Satan's presence in the north part of the church enclosure was at one date so great that accommodation had to be made available in the southern part by sanctioning burials one above another. That is why some churchyards are much higher on the south of the church than on the north.

In churchyards are to be found, too, many relics of grim and gruesome happenings, such as the body-snatching activities which at one time provided hospitals with the necessities for dissection. In the south-west corner of Pannal churchyard, near Harrogate, lies a weighty slab of stone which it was customary to manhandle over new graves as a precaution against the reopening of the tomb. Another idea sometimes seen is an iron grille with the heavy gravestone on top.

Epitaphs and other memorials, of course, are an exhaustive study, but some of the most entertaining may be referred to here. What bitter family feud, we wonder, caused the following verse to be inscribed on a tombstone at St Hilary, Cornwall:

*Here lies Ned.
I'm glad he's dead;
If there must be another,
I wish 'twere his brother,
And for the good of the nation
His whole generation.*

In contrast is the inscription in Belbroughton churchyard, Worcestershire, which states:

*An honest fellow here is laid,
His debts in full he always paid,
And what is more, the neighbours tell us,
He brought back borrowed umbrellas.*

Though the circumstances responsible for such odd epitaphs are seldom disclosed, one suspects that the verses were penned by the individual to whom they refer, and instructions that this form of memorial notice was to be used probably appeared in his will. The presence of such secular epitaphs in a churchyard cannot otherwise be easily explained, unless they are very old—as they rarely are. The sanctioning of such rhymes in modern times by the ecclesiastical authorities can hardly be conceived. But further back in the history of our churchyards these places were put to many uses not directly concerned with the Church.

Fairs and markets were held there, and mementoes of the custom remain at some places, notably in the form of village stocks just within the churchyard. After the Reformation, churchwardens were expressly instructed to provide such things, as can be found at Crowle, Lincolnshire, where the churchyard stocks were used until less than a century ago. Even wrestling matches and other sporting events were often staged in the

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church enclosure, and these entertainments took place on Sundays, as did many of the markets.

The circumstance is not hard to explain if one remembers that the village church in earlier centuries was much more the focal point of community life than it is to-day. Churches still play a part in civil affairs, parish notices being displayed on the door—announcements of elections, and so forth. It must also be borne in mind that travelling was difficult until not so many decades ago, and that to make one journey serve for both churchgoing and marketing was not unreasonable. A natural result was to hold the market close to the church, and the churchyard was a handy marketing-place.

AS to that common churchyard feature, the yew-tree, various explanations have been put forward to account for the custom of planting these within church enclosures. No single explanation seems to suffice, and probably the idea originated for different reasons at different places.

The popular notion that yews were grown within this protected area because they were wanted for bows, necessary to the defence of the realm, is not nowadays authoritatively supported to more than a limited degree. English yew wood, in fact, is known to be unsuitable for bows. Edward IV certainly encouraged the cultivation of the yew as a source of wood for longbows, but this step was possibly experimental, since in later times a royal edict required every English ship reaching our ports from the Continent to bring a quantity of foreign yew wood for bows, the amount varying according to the size of the ship.

The belief that yews were planted round most of our churches to protect the buildings from gales is little more tenable. Few village churches have a sufficient number of such trees to provide adequate protection. In any event, other species would form a better screen.

Yew wood could be used for other things

than bows, however, and these trees may have been grown in churchyards because the leaves are injurious to cattle. The church enclosure would be one of the best places to plant the yews, as cattle would not be allowed to stray there.

Still another possibility is in the fact that this species of tree was used in the past both as a symbol of death, its heavy, dark foliage being emblematic of perpetual darkness, and as a token of eternal life, by reason of its vitality.

In the end, all that can with certainty be said about the introduction of the yew-tree into our churchyards is that the circumstances are surrounded by mystery and confusion.

CHURCHYARD gates also merit attention. The variety of lychgates is legion, but the original purpose of all of them was to provide shelter for the priest and mourners while part of the funeral service was read at the entrance to the churchyard. Some lychgates incorporate a stone slab or table to support the coffin. An example is in the lychgate at Chiddingfold, Surrey. Another old lychgate, at Burnsall, Wharfedale, has a revolving gate actuated by a primitive arrangement of weights, pulleys, and chains.

At a number of places the churchyard has two entrances of equal importance, one protected by a lychgate and the other devoid of this amenity. Tradition has long declared that it is unlucky for wedding parties to approach the church through the lychgate. Madeley, Shropshire, and Barthomley, Cheshire, are two villages with churchyards that possess duplicate gates.

For their oddities and relics our village churchyards are of more absorbing interest than the enclosures of many of our cathedrals and minsters. The growth of our cathedral cities has entailed the removal or drastic alteration of many features which are still to be found in village churchyards, and it is in these more remote and less mutilated places that the greatest scope remains for a study of this engrossing chapter in Church history.

And All Unseen

HARTLEY KEMBALL COOK

MARGARET FILTON waved her hand carelessly to the young man on the platform and began to settle herself in comfort for her long journey North. She was reflecting that these platform farewells were very silly. After all, she had been dancing with Edward a few hours earlier; this business of seeing her off would have made him late for his office, and, for ten minutes before the train really started, they had had nothing to say to each other. But she supposed that Edward would have been hurt if she had told him not to come to see her off, and so there he had stood, looking very uneasy on the platform, making the same idiotic remarks about her journey half-a-dozen times over. Oh, these dreary old conventions so unsuited to a hard-boiled young woman in a hard-boiled world. Quite evidently he had expected to be allowed to kiss her, but she'd avoided that.

She was a traveller of some experience and proceeded to make herself comfortable as the train puffed gallantly up the steep incline from Euston Station. She got out the book—a somewhat heavy excursus on the economic future which she had been intending to read for some time, yet without ever getting further than a hasty dip here and there. On this journey and during the next week or two, when she would be visiting elderly, and perhaps boring, relations, she expected to read it—to cut the pages anyhow, and to look at the index to see whether anyone of her acquaintance was mentioned. She disposed her light luggage on the rack and, in doing so, glanced at the other occupant of the compartment, who was sitting diagonally across from her. She was accustomed to proffers of help on such occasions, and rather enjoyed exhibiting her independence by refusing them, and so was just a little piqued by her travelling com-

panion's absorption in the book which he had taken from his bag as soon as he joined the train. She thought him rather good-looking, in spite of a beard, to which she objected on hygienic grounds, yet his aquiline nose, high forehead, and cool grey eyes were points in his favour. She made a little unnecessary bustle in the compartment as she settled herself, but he took no notice.

She was making this journey with that feeling of heroism with which a person sets out to do something disagreeable, though with a steady determination to carry it through. She was on her way to visit two aunts, and it is only fair to say that, though in suggesting the visit her mother had not lost sight of the fact that the old ladies were handsomely dowered, Margaret herself had no mercenary intentions. This was just one of those fatigues which had fallen to her since the outbreak of the Second World War. When she was serving she had thought with longing of her civvy clothes; now that she was back again in civvies she sometimes hankered after uniform and all that uniform meant.

The elder of the two aunts was reputed to be a formidable old lady, a good deal older than her youngest sister, Margaret's mother. She lived in an old house in the North of England, and was understood to rule with a firm hand the village which had grown up in the days when her ancestors owned the land and its inhabitants for many miles round 'The Grange.' Only once had she come to London since Margaret was born, and had then expressed opinions on the proper discipline of the nursery, which had not increased her popularity there. 'However,' Margaret had said, in agreeing to make the journey, 'I suppose she won't try to whack me now.' And she flexed her arm-muscles contentedly.

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ACTUALLY, Margaret's fellow-traveller had made a brief survey of her when the porter was bringing in her luggage. He saw a fair-haired girl, rather above the average height of her sex, with a frank self-reliant bearing; a girl to be looked at twice, even if she lacked regular beauty—a word, indeed, which had no place in her vocabulary. Too little skilled in such matters to be able to judge how far her complexion was or was not the gift of Nature, he thought she was a good type of the post-war young woman, even supposing he did not greatly admire that type. He had returned to his book as she had begun to ply a paperknife here and there in hers. Presently she lit a cigarette, and he brought out a well-seasoned pipe; apparently he might look forward to a quiet journey. It was some time since he had made the trip South, and he was glad to be going home again. One or two people passing along the corridor had looked into the compartment and had probably put its occupiers down as a father in the sixties and a daughter in the mid-twenties, a guess which would have frightened one of them and amused the other. Seemingly the car-attendant made some such deduction, for he addressed his luncheon announcement to the elderly man.

In the end, she had lunch at the same table, neither of them thinking it worth while to correct the supposition, and, after a little hesitation, they began to talk. What they said was uninteresting enough, the common exchanges of a luncheon-car acquaintance, but, from that, Margaret passed into a question about the train, and this seemed to promise better.

'This train,' he said, 'rather reminds me of those old stories against Bradshaw.'

'Oh, you mean about trains which begin nowhere and end somewhere, and trains that begin somewhere and end nowhere?'

'Yes, something like that. At present this is a very important train indeed. I should guess that we are running at something like a mile a minute, but during the afternoon we shall come to a junction, and there this train will begin to wander. We shall stop at tiny stations that no one has ever heard of except one unfortunate passenger for whom they will have to move either the train or the platform before he can get out. Still, I was assured by the stationmaster before I started yesterday that if I came back on this train and was patient I should arrive.'

Margaret laughed. 'They told me at Euston that I should arrive too.'

'And to confirm our hopes here comes the travelling collector.'

The collector it was, and he clipped their tickets and mentioned 'Deepridge.' When he had passed on, the elderly man looked across the table with new interest. 'This is indeed remarkable,' he said. 'Will it be horribly rude if I venture to ask what brings you to Deepridge?' And, before she had time to answer this rather strange question, he went on: 'I'd better explain. The train certainly stops at Deepridge, and that is convenient for my rare visits to London, but I've come to think that I was the only link between Deepridge and the South.'

'Not the only one. I'm on my way to stay with an aunt, two aunts actually, but it's my Aunt Sophia, the elder of the two, who's important.'

An astonishing change greeted this announcement. Margaret's luncheon partner scowled—there was really no other word for the expression which had taken the place of the politely inquiring look of a few minutes earlier. Margaret felt almost frightened for a moment, and then pulled herself together at his question: 'I presume you are speaking of Miss Sophia Penant and her younger sister?'

'Yes, Penant, that's her name.'

The elderly gentleman stood up. 'If you'll excuse me,' he said formally—and was gone. At the entrance of the car he encountered the attendant, and Margaret noticed him shaking his head violently before paying his bill, from which she gathered that he had disclaimed any responsibility for her lunch. She shrugged her shoulders, and ordered coffee. When she returned to her compartment he had gone, and she saw no more of him till the train reached Deepridge. Then she caught sight of him climbing into an old-fashioned dogcart before what was surely the oldest car in the North of England carried her to her aunts' house.

OVER the teacups Margaret found with some disgust that she had not got rid of her childish awe of her Aunt Sophia. Aunt Maria was fat and jolly; Aunt Sophia was thin and stern. Instinctively Margaret was trying to prune from her conversation a number of expressions current in London,

but not likely to commend themselves here, and yet, while a little frightened of Aunt Sophia, Margaret could not help admiring her aunt's clean-cut features, her ruthless chin, and bright blue eyes. She mentioned the bearded stranger who had lunched with her on the journey down, and there had been an awkward pause. Aunt Maria had flushed and put down her cup on the tea-tray with a clatter. There was a look in Aunt Sophia's face which brought back to Margaret's mind that occasion long past when Aunt Sophia had been paying her visit and had caught out Margaret in a fib. However, the storm, or whatever it was, passed away. Aunt Sophia said coldly: 'We know the gentleman to whom you refer,' and presently suggested that Maria should show Margaret her room.

Arrived there, Margaret said at once: 'I dropped an awful brick, didn't I? If it hadn't been so far away I think I should have jumped up and made for home.'

'It was just a little unfortunate, dear.'

'Unfortunate, was it?'

'Yes, but, of course, you couldn't be expected to know.'

'Well,' Margaret confessed honestly, 'naturally I gathered in the train that there was something.'

'Yes, there certainly was something. A long time ago your Aunt Sophia and the gentleman you met in the train were engaged to be married.'

'Good Lord, but they're both . . . Oh, you said it was a long time ago, didn't you?'

'The gentleman in the train was Mr Fernley. He lives about six miles away across the moor. He was handsome when he was young, and, of course, your Aunt Sophia was a very beautiful young woman. Everyone thought that it would be a splendid match. The two families had been friends, oh, for generations.'

'And one of them broke it off? Which of them?'

'I don't think anybody ever knew. They had a great quarrel in this house a week before they were to have been married. Just at first everyone hoped it was only a lovers' tiff and that they would make it up, but they were both terribly proud, and the years began to fly past until people gave up expecting to hear of a reconciliation. I must confess I hoped that Mr Fernley would go away and live somewhere else, for it really was quite awkward, because, you see, his family and

ours had always been on such good terms and were regarded as the leading people of the country round.'

'Yes, Aunt Maria, I can see that it must have been rather awkward. I suppose they have to meet on platforms and so on, being the big noise in the district?'

'My dear, what strange expressions you use. Still, it's true that we and the Fernleys are the oldest families in the county. Several people have tried to reconcile them, but it hasn't been any use. And now, my dear, just ring if you want anything. We are old-fashioned people, at least Sophia is, and want to keep everything just as it used to be.'

The evening dragged, with Aunt Sophia sitting bolt-upright in her straight-backed chair; Aunt Maria busy with some knitting which seemed always to be getting into tangles and having to be undone again. But Margaret, while she chatted away, was busy with the story which Aunt Maria had told her. Really these Victorians were quaint. Fancy those two people, old now but young once, living only six miles apart and keeping up a row the origin of which probably neither could remember. Something of Kipling's was running through her head as she said good-night at a preposterously early hour—something about Romance all unseen bringing up the nine-fifteen. She had been prepared to be horribly bored during her fortnight's stay in the North, but this story suggested at least a possibility that she might do something about it. At any rate she would sleep on it.

And sleep on it she did, with the result that when she came down to breakfast next morning she had a rough idea of a possible plan of campaign. This she did not impart to her Aunt Maria, fearing that any premature disclosure might spoil the whole thing. Instead, she sat down and wrote an account of her journey to her swain in London, telling in outline the story of Aunt Sophia and Mr Fernley. 'I've quite made up my mind to put an end to this quarrel. Can you imagine living all these years within six miles of each other, each determined not to run away, and I expect in love with each other still if they knew their own silly minds?'

IT was characteristic of Margaret that once she had begun to make plans about anything she was all for putting them into action at once. She did not intend to stay

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here beyond her original invitation and so no time must be wasted. Obviously, she must get hold of Mr Fernley. When Aunt Maria suggested a visit to the village, she agreed with enthusiasm, for at least this would be doing instead of only thinking.

Sure enough, they had not gone halfway along the village street when Aunt Maria said nervously: 'Shall we cross over here, dear?'

Looking ahead, Margaret saw her fellow-traveller coming towards them. 'You cross over, Aunt Maria,' she said. 'I must just say good-morning to Mr Fernley.'

Aunt Maria scuttled over the street and left Margaret to express surprise and pleasure on encountering Mr Fernley. Actually, he had seen her first and had been meditating crossing the road, but evidently thought better of it, noticing that Aunt Maria was crossing too. He turned into a shop without much hope of escaping Margaret, who followed him in. He kept his back turned to the door, but she was not to be denied. 'We meet again,' she greeted him, 'and I hope you aren't going to disappear as suddenly as you did yesterday. I couldn't think what had become of you.'

To this he made no reply, only remarking on the probability of rain, though the day was apparently set fair. The shopkeeper, who had come from a backroom at the sound of their entry, waited a moment, and then vanished again. 'I'm doing some window-shopping with my Aunt Maria,' Margaret went on. 'Of course, you two meet often, I suppose. But I mustn't keep her waiting, so good-bye for the present.' She retired with the honours of the day, and was careful to talk of other things on the way home. No use, she felt, to rush her fences, yet she was going to get an invitation from him to visit his house.

It took her a week, but she did it eventually, having gone out alone one afternoon and plodded resolutely along a dull road. She was halfway between the two houses when she saw him walking rather fast, with a cairn terrier stravaiging about. A dog—that made things easier, even though its owner would have passed her with a conventional salute if she had not stopped to admire the cairn, who was quite ready to be admired. She began to think that Mr Fernley had only one topic of conversation, when he remarked that it looked like rain, but this time she made full use of the opening and, as the first drops of the

shower began to fall, she found herself accepting a not very pressing invitation to take refuge with him.

Mr Fernley's house bore all the marks of bachelor neglect, at least to a feminine eye—a man would have found it pleasantly untidy. She was ushered into a room lined with bookcases. She was not asked to explore further, but an elderly manservant brought tea, after which the shower passed and, refusing the offer of a conveyance to take her back to her aunts', she set out in high spirits on her long walk home.

The worst was over, she felt. She had established a foothold in both castles, and a fairly lively imagination sufficed to carry her over the remaining stages of her campaign. For the present, however, it was the next step which mattered, and that evening she began determinedly to discuss Mr Fernley and his house, ignoring various danger-signals thrown by her younger aunt. Aunt Sophia remained sternly aloof, a book in her hand, while Margaret guessed with glee that she was not reading it. At last, on the following night, similar tactics drew Aunt Sophia into the conversation, and Margaret was satisfied that it was safe to proceed.

It would be tedious to follow every detail of the campaign, to describe the morning on which Aunt Maria did not cross the road when she saw him coming and he did not take shelter in a shop; or to move on a little further to the day when he expressed a hope that Aunt Sophia was keeping well, as if he and she had last met a fortnight ago instead of five and thirty years. On the day when Aunt Sophia admitted that it would be a help if Mr Fernley could be persuaded to support her favourite charity, Margaret went to bed, only sorry that her visit was nearly ended. Still, she had little doubt of the result now, and Aunt Maria could be trusted to report progress.

It was on the very evening of the day when Margaret was to return to town that Mr Fernley was to come over to dinner to discuss details for a great local carnival in aid of Aunt Sophia's charity. It has been noticed that Margaret considered herself a woman of her period, and yet, as the train carried her southward, she found herself indulging in some romantic imagining of what was happening behind her. She pictured both parties

rather stiff and awkward at first, with Aunt Maria fluttering between hope and fear; then a slow mellowing, Aunt Maria tactfully melting into the shadows while the two old people began to remember, to regret, and to think again in terms of the future rather than of the past. Not at once, of course, but quite certainly within a few months they would realise that there was still time to begin again. At this stage Margaret was not quite sure whether an unexpectedly hot potato at dinner in the dining-car or Romance had brought tears to her eyes.

Actually, about the time when the train reached the terminus decisions were being made, but not quite as Margaret had been picturing. Her aunts, their guest departed, were talking over the evening—at least Aunt

Sophia was talking. 'What a fortunate thing it was that I never married James Fernley. He always was argumentative, but now he's simply unbearable. It was very silly of you, Maria, to persuade me to have him here. However, when once this carnival is over we need see no more of him.' Maria opened her mouth, and then decided that silence was best.

Across the moor Mr Fernley was driving his dogcart homeward. 'What a blessed relief,' he said to himself, 'not to have married that woman. I can't think how I ever thought that she was good-looking. And her tongue! I should probably have murdered her before now.' And then aloud: 'Gee up, old mare. Let's get home to our own place—and stay there!'

Explosion on Suez

P. E. O'DRISCOLL

SOME TIME during 1906, the *Chatham*, loaded with 110 tons of dynamite, left Port Said and took her way down the Suez Canal flying the signal denoting that she carried explosives. She had sailed about nine miles from Port Said and was at the second canal station when the *Clan MacKinnon* approached from the opposite direction.

In accordance with the Canal Company's regulations, the *Chatham*, which was outward bound, proceeded to tie up in order to allow the passage of the homeward-bound vessel. Before she was completely moored, the *Clan MacKinnon* started to pass her, when the captain, seeing a chance of collision, reversed his engines, making his ship veer inwards toward the *Chatham*, which, being insufficiently moored, swung out to meet the *Clan MacKinnon*. The *Clan MacKinnon* struck the *Chatham* forward in the lamp-locker, where, as was the usual practice, a lighted lamp was

kept hanging. The shock occasioned the lamp to fall and ignite the oils stored in the locker. Before anything could be done, a stream of blazing oil was flowing down the forward hatchway, where the dynamite was stored in a magazine, surrounded by coke. The Canal Company, realising the danger, sent their vessel, which, in order to extinguish the fire more rapidly, flooded the forward hatch, so as to sink the *Chatham*.

Owing to the construction of the canal, the ship, which had been partially moored to the bank, was left resting on a ledge. Although she was encased in chains to prevent her from settling into the deeper water in the centre of the canal, and thus endangering shipping, it was found that passing vessels continually caused these chains to break.

Fortunately, a representative of Nobel's was in Egypt at the time, and he was summoned to the wreck with a view to salvaging the

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dynamite. His inspection showed that nitroglycerine, one of the components of dynamite, had seeped out by the action of the water and, being heavier than water, had sunk into the bilges of the ship. A sample of the water in the bilge having been taken, Canal Company officials were convinced that there was no possibility of salvaging the explosives. Should the confining chains suddenly break, leaving the ship to slip off the ledge into the deep-water fairway, another part of the cargo, consisting of pig-iron, might conceivably fall into the impregnated bilge-water and detonate the explosive with disastrous results to any vessel that might be passing.

SUCH being the case, it was decided that the only solution possible was to close the canal to shipping and to detonate the explosive by a safe means. Because of the importance of the canal, this was a considerable undertaking, and more so as the fresh-water canal which runs parallel to the canal proper, and carries the water-supply to Port Said from the Nile, had to be diverted round the possible area of the explosion. This work was carried out by means of native labour, and notice was given that the canal would be closed to navigation for at least fourteen days.

The Canal Company stipulated that the charge should be fired from a distance of not less than four miles, although Nobel's representative, Mr Price, was quite satisfied that it would be perfectly safe to do so at a distance of a quarter of a mile. The Canal Company also issued instructions that all ships in Port Said harbour should be double-moored, as they feared that the explosion would cause a large wave to be forced up the canal, and the effect in that crowded harbour—for ships were literally queueing up in it and were anchored well out into the Mediterranean—would be disastrous. This was scientifically impossible, as the explosion would have to raise a depth of water of at least eighteen feet and would result in the water falling rather than rising. The actual effect was that the water in Port Said harbour rose three inches and then fell eight.

WHEN the necessary arrangements had been completed, the canal was closed to all shipping, and at 9 a.m. on the morning selected, detonators having been fixed by divers inside the ship, the electrical contact was made by Mr Price, and the explosion occurred. From my position with the firing-party four miles away the sight was extraordinary. A column of water, measured by Captain Luck the Canal Company's pilot, rose to a height of 2000 feet and then spread out to the likeness of a huge mushroom. Indeed, it bore a marked resemblance to the Bikini experiment of more recent years. From the mushroom appeared dozens of points dropping earthward, giving the effect of a great torrent of rain pouring off a vast umbrella.

We had all been expecting a spectacular explosion, but the actual sound at four miles' distance was very slight. No doubt the fact that the surrounding country was flat and sandy had something to do with this. After the explosion, we in the firing-party went to see the result and were surprised at the comparatively small amount of damage noticeable in the canal banks. However, two or three hundred yards from the site, the water in its descent had scooped out holes in the sand quite large enough to swallow up a full-sized house.

In fact, to the astonishment of all concerned, in spite of the unprecedented quantity of so powerful an explosive, it became necessary at a later date to blow-up the keel of the ship, which was still in the canal. It is believed that the direction of the explosion of dynamite is downward, so it is surprising that the keel survived as it did.

The dispute as to liability was later settled in the English Court of Admiralty, but the explosion itself was an anticlimax and all the extra mooring-ropes unnecessary. No great tidal-wave buried the canal banks, and the water, as I mentioned, really dropped eight inches. Even in the 1914 war I doubt if such a quantity of explosive was ever intentionally set off at one time in one place, but it would have been interesting to compare the effects.

R.L.S. (1850-1894)

A Centenary Assessment

DORIS DALGLISH

(Author of *Presbyterian Pirate: a Portrait of Stevenson*)

CENTENARIES are strange occasions, for it is hard for the spirit of man always to celebrate them in complete disinterestedness. The experts familiar with the work of the hero of the year may do their best to arrive at a coldly objective assessment of the great things which he achieved, but even they are at the mercy of the spirit of their time, and the morning's news may suddenly throw new light upon an æsthetic perfection or a philosophic doctrine which had not hitherto seemed to be particularly intimately associated with to-day's needs. It may be that last year's unduly prolonged celebrations of Goethe and this year's stream of Wordsworth-contemplation owed a deeper intensity even than might have been expected to the fact that both writers were great steadying figures. To such men a generation racked with fear and uncertainty had every reason to turn for help.

That alone, however, would not necessarily alter the judgments of the literary critics or cause either writer to be exalted or cast down in the hierarchy of his country's literature. A more complicated problem faces us when we are dealing with the centenary of the birth of Stevenson. Too long have we been told that his reputation was wearing thin; and so it well may have been, for it was a reputation founded largely on the incidental virtues of his art, and the picturesque and touching circumstances of his life, by critics who were, or chose to be, blind to its essential qualities. Now that the hundred years are up, the very wretchedness of what should be civilisation, together with the changes brought about in literature when unifying religion and values universally maintained all fail, enable us to pass an infinitely fairer judgment. The writer who, in a fit of depression, described himself

as 'the author of a few books for boys,' and was so very much more than that, should not lack just appreciation by readers familiar with the hour when earth's foundations flee.

AT one time Stevenson was easily first among the authors dear to youth. Now that youth has been emancipated—one might almost say, in some instances, that it is the children who believe with passionate faith, while the 'old folk' refuse to go to church—it is difficult to tell if any contemporary writer possesses exactly that type of persuasive influence. Essays, poems, travel-books, letters—perhaps not so markedly the novels—young readers devoured them and aimed at basing themselves upon this charming Bohemian, this eternal playboy, this Peter Pan, this Papageno. The open road where the gauger's flute summoned us with 'Over the hills and far away,' the hour when the sleeper-out feels almost an alteration in the rhythm of earth, the obligation to be brave and kind, yes, and to be honest also, even if it meant wounding the older generation, these were the motifs which harmonised into the great Stevenson symphony. We were ready to listen to it again and again, deriving fresh inspiration from the youthfulness and the charm and the fun, and if there did enter some thought for the brave invalid whose body never gave him a fair chance until the last years of his life, we paid some tribute of admiration but went back to concentrating on our romantic hero. 'He writes poetry, he has eyes of youth, he smells April and May.'

Thus did Stevenson appear to the youth of a generation which was accustomed to imperialism, prosperity, and comfort. He

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could not command such a public to-day. Nor would he wish to. It is not possible to trace in his development any deep concern for the religious and political problems of his time, any interest in the prophesyings of Carlyle or Ruskin; yet Stevenson's readers, as they themselves grow older, have discovered in him the serious writer of tragic possibilities whom at heart he wished to be, in spite of his occasionally specious worship of the principle of mere activity as the novelist's theme. There emerges also the devoted craftsman, the man who, underneath the chatter and jesting, was a dedicated spirit, hardly apprehending the intensity of his own dedication to the ideal of artistic perfection. That most astute of his critics, Henry James, spoke of his 'love of letters, of expression and form, which is but another name for the life of service.'

TURNING to the shelf of his works (not without fresh astonishment at the versatility which resulted in their being, like Mr Belloc's, 'all of different kinds'), it is instructive to see what permanent delight remains from those which most usually were the ones enchanting to youth.

In *Virginibus Puerisque* the strongest surviving elements are, perhaps, the lyricism of 'Ordered South' and the vigour of the Raeburn portraits. From *Memories and Portraits* every reader would wish to preserve 'Old Mortality,' its eloquence rising to that unforgettable paragraph on the deaths of friends. 'The Foreigner at Home' can still supply good argument for Scots rejoicing in a heightened national consciousness.

Across the Plains surpasses the other collections of essays and is obviously the work of a more mature writer. In that line, Stevenson never wrote a more powerful outburst of sermonising than the conclusion of 'Pulvis et Umbra.' All the charm compressed in the well-known 'Lines to W. H. Low' ('Youth now flees on feathered foot') is unfolded and expanded in the essay on Fontainebleau. He was writing of the country which, next to his own, he loved most, in which he found the true home for his spirit, and particularly among those art-student fraternities whose varying habitations in the forest he so vividly describes. 'On a part of our life's map,' he wrote elsewhere of such existence, 'there lies a rosy, undecipherable

haze.' Not undecipherable, however, so long as we have these pleasant vignettes in which he enshrines Barbizon, Grez, and many another glimpse of river, inn, and poplars. Who that has ever tried to write can resist the wistful charms of that passage in which he turns from the painters to the students of writing?

An Inland Voyage and *Travels with a Donkey* will always bear rereading—gentle water-colours, which fade when compared with their modern equivalents but must have been novelties in their day.

Such is the body of prose work which appealed to the young reader of Stevenson.

TO say that it takes an older reader to appreciate Stevenson's novels is to say no more than that maturity counts; nor does one forget that anything as magnificently conceived as *Weir of Hermiston* is sure to capture the genuine reader at any age. But most of Stevenson's earlier fiction is so inferior in the mingling of power with charm which characterises *Weir* that it demands the adult reader. History, however, has brought it to pass that it is the very grimness of the earlier novels and short stories which is able to commend them to readers bewildered by Kafka and scourged and harried by Mauriac and Graham Greene. A glance at *The Merry Men*, the various stories in which deal with madness, murder, frustration, degeneracy, and the very devil himself, blots out the portrait of the light-hearted vagabond and replaces it by that of a writer who, thanks to being born and bred in Calvinism, needs no advice from to-day's writers on the subject of man's wickedness. These particular stories, written in comparative youth, are well worth rereading, as much for the richness of the style (e.g., in 'Olalla') as for their tragic qualities.

Much later, Stevenson was to write (certainly in collaboration, but no one who knows his Stevenson can fail to observe the predominance of the master-partner) two powerful novels, *The Wrecker* and *The Ebb-Tide*, the second of which is another example of his anticipation of the atmosphere of to-day's fiction: a study of a man's failure and remorse, definitely marking a stage in that development of technique which was to astonish every reader of *Weir*.

By then Stevenson had also written the novel which many would place second to *Weir*,

though, such is the human craving for a flavour of delight in our most serious reading, they are probably glad that the existence of *Weir* excuses them from having to call *The Master of Ballantrae* Stevenson's finest novel. A fine novel it is, and an example of rare technical skill. 'The Master is all I know of the devil,' said Stevenson; but it was not his view of the Master which he laboured to give us, but the view of Ephraim Mackellar, dry, pedantic, repressed, and writing in his own 18th-century jargon. The extraordinary power of this study of fraternal hatred would alone be enough to convince us that here was a writer quiveringly alive to the omnipresence of evil. Stevenson may have rebelled against the externals of Calvinism in his boyhood, but he never deluded himself out of it, and among modern Scottish writings he would have immediately understood James Bridie's *Mr Bolfry*, with its exposure of the half-faiths which banish the devil.

Nevertheless, it is not the loss of a completed masterpiece of mere gloom which we mourn as we gaze upon the few chapters of *Weir*. This was to have been a tragedy, a very different thing, a story of suffering as miraculously irradiated by flashes of beauty as ever was Greek tragedy by the lyrics of the chorus.

STEVENSON'S poetry suffered from long neglect and superficial criticism, but H. W. Garrod and others have revealed the treasures which lay there almost unsuspected. Stevenson himself was singularly reticent about his verses and spoke depreciatingly of them in terms from which no one could guess, for example, the amazing skill with which he could write at length in octosyllabic couplets (as in 'The Woodman' and 'My body which

my dungeon is'), whose ingenuity recalls no less a name than Marvell. His poems in Scots have been similarly underrated. The preface to these, in which he defends his eclectic use of dialect, might be a useful shock to some of the extremists who now come 'lowpin' and flingin' in the best Lallans. Those who do not know the exquisite satire of 'The Scotsman's Return from Abroad' have missed much, and in 'The Spey Wife' we find the sardonic force of the national poetic spirit interpreted in a more eerie imaginative vein.

WHEN Stevenson was alone in America in 1879 after his 'amateur emigrant' voyage, without money or friends, in dangerous ill-health, cut off, for the first time in his life, from his parents and home security, he wrote to Henley: 'So I learn, day by day, the value and high doctrinality of suffering.' The phrase might have been a motto for his whole life. At that time all the grit that was in him was apparent. All the determination and courage which we associate with him rose to the top, not merely in the fight against circumstances and illness but in the fight for something precious. He was out to learn, in a writer's way, the secret of the sorrows which 'school an intelligence and make it a soul.' A little earlier he had written to Gosse: 'I believe the class of work I *might* yet give out is better and more real and solid than people fancy.' That this came to pass, no one who reads the later novels and essays, especially in conjunction with his letters, could deny. It is not only the unsmiling habits of an oracle which constitute a serious writer. In Stevenson we have outstanding proof that lightness and versatility and astonishing alternations of light and shadow can have the same result.

The Pebble Garden

*My little garden near the sea
Is visited by wind and spray,
So not a flower will bloom for me;
But there I've gathered day by day
A lot of pebbles smooth and white,
And made a gleaming cobble-floor
That speaks of ocean waters bright
Breaking along a shingly shore.*

*And some are silver, some are pink,
Like moon or sunlight over snow,
And when I look at them I think
Of twilights when I used to go
And watch the wild sea-horsemen ride,
And hear their far-off singing tones,
And pilfer from the turning tide
Its little polished pebble-stones.*

ELIZABETH FLEMING.

The Visionary

MICHAEL KENT

ON the day of my Great-uncle Sam's funeral, old William Clayton, the chief clerk, brought from the office a small, sealed package which he insisted on placing in the coffin. 'Master Sam's particular orders.' He had called my great-uncle 'Master Sam' since they had entered the firm together nearly seventy years before.

The package caused a deal of speculation. 'Who could have dreamed that the old gentleman had a romance in his life?' was my mother's comment. She had ever held him as a scapegrace, but the bier was patent of gentility.

Conjecture begat hypothesis in time, and hypothesis, tradition. He must have been enamoured of some daughter of a noble house supremely lovely but beyond his reach. Doubtless a noble and unbending parent had married the reluctant maid to a coroneted admiral. So with the lapse of years it became family history, a sweet, sad story. 'It was too pathetic,' my mother used to say. 'The poor old darling never mentioned it, but this I do know, for I saw it myself. Clapsed in his hand when he was buried was some treasured keepsake. Poor dear Uncle Sam!' It pleased her so much that I had not the heart to reveal the truth to her, but it can hurt no one now, and I know the old chap would chuckle if he could but tell the yarn himself.

I MUST have been about six, and Uncle Sam was in his seventies. In those days we walked about Canchester together, for uncle loved to tell me of its ancient intimate history. One day he paused to pass the time of day with Simon Boree at work in the front-garden of his house in Monastery Fields.

Simon, a retired watchmaker, lived alone in a little house, with London pride and cherry-

pie in the garden. Its path was a mosaic of patterned pebbles, and a yew-tree in the central plot was carved in the shape of a teapot.

'Morning, Simon,' greeted my uncle.

'Good morning to you, Mr Chapman, sir,' replied he.

He was a little iron-bearded man, with cloudy hair and deep-set pondering eyes, a man of Huguenot descent, who still recalled the breed and manner of Brittany. 'I have awaited your passing this week and more,' said he, with rather more than his usual dignity. 'Would you do me the honour of stepping within?'

'Why, yes,' accepted my uncle. 'Uncommonly pleased, I'm sure. What can I do for you this fine bright morning?'

We were shown with ceremony into his front-room, a dustless place of polished surfaces and horsehair chairs. Two greyhounds and two ocean-shells guarded the clock of ormolu on the mantelpiece, and a coloured picture of Queen Victoria filled the cold grate. The chimney alcoves displayed two green-painted drainpipes holding sheaves of pampas-grass and, beneath a dome of glass, upon a bamboo-table in the window, stood a model of Canchester Abbey done in mother-of-pearl shirt-buttons.

'I will not detain you a moment, sir,' promised Mr Boree, 'and I confide that you will find the time not ill-spent.' He vanished, to return a little later with a tray laden with glasses, a plate of cakes, and a neat leather case some five inches long, lying on a sheet of white tissue.

'May I tempt you to taste a glass of parsnip-wine?' asked Mr Boree.

'No need to tempt, Simon,' replied my uncle bravely. 'You have wine-making in your bones.' He knew that thus to recall

his French tradition warmed the old man's heart.

'And a glass of milk and a bun for the young gentleman?'

'Thank you, Mr Boree,' I piped.

Uncle Sam savoured the wine as if it were a vintage of the blessed earth between the two seas. 'Your good health, Simon,' toasted he. 'So that's why you asked me in?'

'No.' The eyes beneath the old man's shaggy brows were far-focused on some vision of the soul. 'It was for something I have long had in mind.'

'Was it?' said my uncle, at a loss. 'Was it indeed?'

'MR CHAPMAN,' continued old Simon, thrilling with prophetic fire, 'have you ever thought of the Day of Resurrection, the Last Trump, the yawning graves, the bodies rising to Eternal Bliss?' Mr Boree's upraised hand had the same compelling dignity as an umpire's who casts his fatal vote against the bat. 'In an instant, in the twinkling of an eye, we shall all be changed, all bathed in heavenly grace.'

'No doubt, no doubt,' muttered my uncle uneasily.

'Mr Chapman, you have for years been my guide, philosopher, and friend. Through all the changing scenes of life I have sought your aid in trouble and in joy. Never has your wisdom betrayed me, or your kindness failed my need.'

'Fiddlesticks,' said my uncle. 'Little enough, Simon, and pleasure to do it. Why make a song of it?'

Simon bowed. 'Only, sir, because having long and vainly pondered some form of recognition to express my gratitude, I have found it at last.' His delicate little white craftsman's hands patted the leather case. 'Mr Chapman,' he went on keenly, 'can you bear to look with naked eyes on the sun in his splendour?'

'God bless my soul,' cried my uncle, 'why should I want to?'

'Because if you dare not face this terrestrial light,' Simon pursued solemnly, 'how can you hope to endure the heavenly one? Now, after long experiment, I have discovered a crystal material perfect for dark glasses. Unfortunately there was only a small quantity, but enough to design three pairs.' He raised the leather case. 'Mr Chapman, go provided. I saw my sister properly equipped. When my time comes I shall not be found unready. Have them at hand in your coffin, sir. There is no charge. Think of it. Of all the mighty hosts of the redeemed on that great day, there may be only three in all those countless millions who will be able to gaze upon the angel hosts and see, wide-eyed, the glories of our everlasting home.'

With reverent hands he folded the white tissue and offered the case, half proud, half doubtfully, but with a simple faith which, young as I was, I understood and still remember.

There was a moment's hesitation, and my uncle took the case. 'Why, Simon, this is very civil of you, very civil indeed.'

'The lenses are fireproof,' assured Simon.

'Very wise,' returned my uncle gravely.

'And you will arrange for them to be at hand when required?'

'I believe you, m'boy,' answered my uncle. 'You can lay to that. There's no present I've ever had that I value more.'

AS we toddled back to our usual rendezvous with the city fathers at 'The Fleece,' I asked Uncle Sam with the callousness of childhood if he meant to wear his glasses when he died.

'Why, you see, bup,' said he, 'it pleases him and it don't do me any harm. So I passed my word I would.'

And I hope they have a good view—bless them both.

Love after Death

*Fame has never run to meet me,
No Promethean fire
Touched my lips and made immortal
Lute, or lyre.*

*Yet, when I have passed the portal,
You will come, I know,
Gladly with a song to greet me—
Love is so.*

S. THOMAS ANSELL.

Portrait of a Punch

A. J. FORREST

OUR island's character in fields and meadows grew trim and shapely beneath the firm, faithful tread of the great horses of the Shires. But as mechanisation increases in sway, intensifying her aids to farming, so is the progress, numerically, of these worthy animals halted. Figures show with what severity. In 1948, for example, England and Wales counted a heavy-horse population of 538,000. This was a drop of 59,000 on 1947's return, and a poor comparison with 1935's total of 873,000. In the same 13-year period registered stallions, travelling in the two countries, decreased from 7000 to 2000.

Yet, however clamant the hum of tractor-ploughs, one part of England can be trusted to uphold the heavy horse and, if need arise, to protect his interests with copious care. The horse is the Suffolk Punch, and his kingdom, for such it is even in name, lies easterly amid East Anglia's pleasantly fertile acreage. Here, in seven recognised shades, every one of them chestnut, this pure-bred horse with the low-set sturdy shoulders, deep, sound heart, magnificently rotund body or 'cupboard,' and clean greaseless legs is honoured still, as he has been for nearly two centuries past. He is a unique breed of cart-horse. His excellences, as breeders well understand, emerge from a four-sided harmony of graceful conformations, iron constitution, compactness, and trueness of colouring.

One who loved Suffolk, and was killed in England's cause by a Japanese mortar-bomb in Arakan in 1945, Julian Tennyson (his grandfather was the poet), described the horse as 'the proudest, most beautiful, and most majestic shire horse in England.' His intense pride of county did not betray him into exaggerated praise.

If anyone has honest doubts about this,

let him look, unprejudiced, on 8-year-old Cattawade 'Commander,' one of the outstanding Suffolk stallions of pre-war years, twice Royal Show Champion; or on the horse's opposite number, the 8-year-old mare Rowhedge 'Myrtle,' the property of a tenant-farmer, who has so successfully exhibited her, with her own foal at foot, at the three latest Royal Shows (1948, 1949, and 1950), to win the championship award on each occasion, while her offspring won first prize at the last two Royal Shows.

The champion stallion, of course, epitomises the qualities of his breed. These, as the judges assess them, include a neck deep in the collar that 'tapers gracefully towards the setting of the head,' long and muscular shoulders 'well thrown back at the withers,' a deep round-ribbed body 'with graceful outline in back, loin, and hindquarters,' and straight legs 'with long clean hocks on short cannon-bones and free from coarse hair.' In addition, he is a smart, true walker, and, if so lordly a creature must trot, then he at once wins our plaudits as a well-balanced action-picture.

I have no wish, in appraising the Punch's merits, to appear depreciatory to his rival heavy-horse breeds—the great Shires, Clydesdales, and Percherons. All have their values adapted to their own favoured habitat and employments. All, too, have toiled long and ardently enough in man's service to deserve his closest friendliness in a mechanised universe. It will be a grey daybreak for Britain's landscape, one indeed of bitter blight, if such creatures are ever relegated to the mustified status of museum pieces, or preserved, living, merely as national-park ornaments.

However, when it comes to all-round excellence, no draught-horse quite measures up, I think, to the Punch in stamina, longevity,

quietness of working, and versatility. This supremacy could be challenged once. From 1839 till 1861, the Royal Agricultural Society of England set out boldly to discover at its annual exhibitions 'the best horse for agricultural purposes.' The quest conformed to its slogan 'practice with science.' It was an open competition. Breeds of every sort and cross-breeds competed. Out of the Society's shows in this period, twenty-two in all, the pure-bred Suffolk carried off the blue riband fourteen times; his rivals seemed almost compelled to share such spoils as he disdained. Thereafter, wisely for the furtherance of less successful strains, classes became exclusive to individual breeds and open competitions ceased.

THE Punch's origin is obscure. As applied to horses, the 'Fat Boy' epithet of 'Punch' is first defined, I think, in Ephraim Chambers's *Cyclopaedia* of 1728. The word denotes, it is written, 'a well-set, well-knit horse, short-backed and thick-shouldered, with a broad neck, and well lined with flesh.' Earlier on, Camden in his *Britannia* (1586) had mentioned the Suffolk breed as being a reality in 1506. There have been well-meaning but unscientific attempts to trace its lineage to Flemish horses, *les gros chevaux* of Soignies, Namur, and Charleroi. Almost the sole point of resemblance to-day between the two breeds is one of colour. Once, too, the breed, as now constituted, was thought to have sprung from a cross between a Norman stallion and a Suffolk cart-mare. This, again, is but intelligent guesswork.

That the Punch was anciently cherished is certain. Foremost among the 'rural describers' of his day, Arthur Young in his *The Farmer's Tour through the East of England* (1770-1) has this, among other comments, to say of Suffolks: 'The breed of horses peculiar to this county is one of the greatest curiosities in it; I never yet saw anything that are comparable to them in shape, or the amazing power they have of drawing.'

Drawing matches! The sport of equine Samsons! What hot tempers and high wagers these fearsome trials of muscle aroused, and often, alas, savage, hideous, and brutalising were their cruelties to straining, foam-lipped animals.

Perhaps the earliest drawing match, of which advertised record exists, took place at

Ixworth Pickarel on Thursday, 9th July 1724. As announced in the *Suffolk Mercury* of 22nd June of that year, the prize was a piece of plate valued at forty-five shillings. Competitors were invited to bring five horses or mares to pull for it, the winners being those which 'drew 20 of the best and fairest pulls with their reins up' and 'they that carry the greatest weight over the block with fewest lifts and fewest pulls.' Ordeal was by sand. A sand-loaded wagon was sunk into the ground, with its wheels, to provide further resistance, scotched by wooden blocks. Teams had to haul it free. Sometimes stallions competed singly in these competitions. All but the very strongest broke down in vain endeavour.

Prowess, locally, as a good drawer undoubtedly enhanced a horse's value; his stud-fees could be raised to his owner's gain. It seems not improbable, too, that such matches, popular throughout the 18th century in the Eastern Counties, helped materially to build up the Punch's hardy constitution and massive shoulder thrust.

As the veterinary surgeon and agriculturist William Youatt (1776-1847) observed: 'Many a good draught-horse knows well what he can effect and, after he has attempted it and failed, no torture of the whip can induce him to strain his powers beyond their natural extent. The Suffolk, however, would tug at a dead pull until he dropped. It was beautiful to see a team of true Suffolks, at a signal from the driver and without whip, down on their knees in a moment and drag everything before them.'

TO revert to origins. Genesis, so far as our modern Punch reckons ancestry, occurred some time in 1768. Then was foaled the horse which every Suffolk breeder can salute to-day as the grandsire of his stud. The discovery of this remarkable horse was the satisfying accomplishment of a man much honoured in East Anglia, the late Herman Biddell, first secretary of the Suffolk Horse Society and compiler in 1880 of its first stud-book. This is a monumental work, lovingly put together with its historical notes, evocations of farming worthies, and records, as complete as any man could discover, of 1230 stallions and 1120 mares. No heavy-horse breed owns a more treasured materfamilias than this Volume I.

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The horse, from which Biddell traced the Punch's lineage, appeared on the road as a 5-year-old stallion in 1773, and for a fee of eight shillings was reputed to 'get good stock for coach or road.' Owned by a Mr Thomas Crisp of Ufford, he was a bright-chestnut in colour, active, and fifteen-and-a-half hands high. And as 'Crisp's noted horse,' to quote from his newspaper advertisements, this masterful progenitor stands at the Punch's head, historically, in the male line.

Warm-hearted indeed grew many an association between man and horse. It is a feeling even tractor-ploughmen respect. Thus we find 'Smith's horse of Parham,' a stallion about three generations removed from the Ufford wonder, saluted in retrospect by his leader as 'a very good horse he was, a gentleman all over.' There are, it is true, a few cases of stallions killing men. Josselyn's 'Boxer,' foaled in 1823, was a notoriously sour-tempered beast, who trampled to death two men before he was shot. But, as a race, Suffolks possess a wonderfully sweet, equable temperament. A child could lead the mightiest. Children have, in fact, shown these great sires in the ring.

To-day, through scrupulous devotion to soundness of stock and pedigree, the reward of an instinct inherited by many families for the Punch's finer points, farmers prefer a horse standing from 16 to 16.3 hands high. And popular weights for stallions range about 2500 lb., while for mares they are some 400 lb. less.

On the matter of longevity, records are almost embarrassing. In London, where Suffolks still draw the odd coal-cart, so advertising good fuel as adroitly as good horseflesh, one haulier boasts of having kept a Punch working in the London coal-trade for seventeen years. And all this time his Old Faithful was never once 'sick or sorry.' Then, a famous old stallion, Julian's 'Boxer,' travelled for twenty-five seasons; Stearn's 'old horse of Easton,' born about the time of Waterloo, was one of sixteen foals bred from one dam; and, in their early days of horse-showing, members of the Suffolk Agricultural Association saw a mare enter

their ring accompanied by the filly she had foaled in her thirty-eighth year! As a rule, the Punch does all man asks of him from the ages of 2 to 24.

IN modern times, the Punch has roamed far from his habitat. After the First World War, he became a target for exceptional prices, to which Empire buyers contributed their dollars. During this heyday, Sudbourne 'Foch' sold for 2200 guineas, and Sudbourne 'Beau Brocade,' Shotley 'Counterpart,' and Sudbourne 'Premier,' all three Royal Champions, changed hands in each instance for 2000 guineas. Crossed with smaller mares, native to Australia and Canada, the Suffolk sire has brought forth stock whose qualities of perseverance and adaptability, especially to sharp climatic variations, have won much praise throughout the countries of the Commonwealth.

Yet, although the Punch is active now from the South African veld to the Argentine estancias, it is to Suffolk that he belongs. He is as much a part of its quiet, companionable, and reflective landscape as a painting by Constable.

The Suffolk Horse Society, with its headquarters at Woodbridge, an old-world, horsy-wise town on the very hearthstone of the animal's homeland, does everything possible to encourage the small farmer, the backbone of the organisation's existence as a breed society. The Punch's future? As Mr Raymond Keer, the Society's secretary, said to me: 'We feel convinced that no matter how mechanised we become there remains a place for the horse on every farm and work he can do better and more economically than any machine.'

The Society, under the King's patronage—many fine Suffolks grace the Sandringham stables—has a membership to-day of about 1600 breeders. So, staunchly supported, the Punch, pride of his county, can hold high his intelligent head, confident that the power, beauty, and compact working graces, so finely and studiously wrought in him, will not for long yet perish from our land.

Preservers of Beauty

Craftsmen of the Museums

FREDERICK J. OUGHTON

FOR quite a time I cherished a delusion. It was that when an exhibit is put into a glass-case at a museum it remains there undisturbed for as long as the museum exists. That is all wrong, of course. I know better now, for I have just had the pleasure of going backstage. Half-expecting to discover silent rows of mummified attendants who had died at their posts, I found instead many busy workshops full of keen men and women who, despite their low wages, are as enthusiastic about reproducing one of the earliest watches as their cousins are about making a camshaft for an export car. Lots of these people were once in industry, but came to the museums because they wanted to do work of a more æsthetic and satisfying nature.

As you tour the workshops attached to the various London museums you notice a million and one jobs being tackled, all very delicate and all very skilled. Some pieces of rusted iron dug up by a Surrey archæologist had just been placed on a glass-topped table in the blacksmith's shop. To my eyes they looked like pieces of old iron worth practically nothing. When I said as much, the blacksmith was taken aback. 'That's what you think, I dare say,' he corrected, 'but the Keeper of the Antiquities wouldn't take a hundred pounds for those pieces. I don't suppose five hundred would tempt him, either.' He paused to switch on the electric-bellows. 'I've got to reconstruct the pieces, then put what I make together. We don't risk ruining the originals. That's why I make reproductions. They send drawings down to me, and I have to do my best with what I've got. These pieces are part of a tripod, I think. Probably it was used for holding cooking-pots five or six hundred years ago.'

One department that would delight a

connoisseur of needlework renovates draperies, tapestries, and upholstery, some of which were old when William the Conqueror was alive. Hairlike threads specially manufactured in Lancashire and Yorkshire are employed, though materials used for patching often come from the crofters of the Outer Hebrides.

A three-hundred-year-old bed is a heavy and cumbersome object to put in a glass-case. It is placed on view in an enclosure. Fragile satins, decaying when the bed reaches the museum, now fall to pieces completely when they are moved about. This is where the needlemen and needlewomen come in. Although they all deal with different branches of stitchery, they have one thing in common. It is a pair of loving hands. You can't throw crumbling tapestries about. They become dust within a few minutes. The pieces are carefully lifted on to a light wooden framework, well-polished to prevent splinters catching the threads, and then the framework is conveyed to the workshop, where it may rest for anything up to six months, until renovations are completed.

A LONG, low building with a glass roof is concerned with the cleaning of pictures. It is not practicable to cover oil-paintings with the usual sheet of glass, and dust collects no matter how clean the gallery is kept. Moisture in the air on wet days causes the dust particles to adhere to the surface of the picture. Within five years a clean painting is filthy, and almost unrecognisable as a work of art.

It may take as many as twenty men to lift down a large Rubens or Tintoretto. Once on the floor, care is taken not to crack or break

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the canvas, which has grown brittle with the years. Conveying the painting to the workshop is a slow business, and a work of art in itself. Larger pictures travel on a sixty-foot transporter through the heart of busy London. As with the moving of other pieces, most of the work is done by night so as to avoid traffic-jams.

To tackle a blackened painting calls for a good deal of both courage and confidence. The restorers who work for the various London public galleries are not permanently employed, but leave their own businesses when called for. They carry small black bags in which you find collections of bottles containing shellac, pigments, varnishes, and a hundred and one other things.

Long before work commences in earnest, the restorer has to test a corner of the canvas to ascertain its exact age. Some are exceedingly clever at this, being able to tell you the year of the manufacture of the canvas without error. Then there are the colours. Ever since art began there have been guarded trade secrets never disclosed. The ingredients of many paints have to be analysed before a chemical capable of reacting on them can be used to full advantage. Clumsily treated by the inexpert, the finest picture may be reduced to uselessness within a few minutes.

It is interesting to watch the various methods. One restorer seems to caress a canvas with his finger-pads, occasionally smearing them with the smoothest of abrasives. Another taps the picture all over with his fingers, then breathes on it. Another may use instruments similar to those of a surgeon.

Restorers are very careful about the alcohol they use for the general stripping, or preliminary cleaning operations. To wipe a famous painting over with cheap turpentine is courting disaster. Refined alcohol is used, though many of these artists, for artists they certainly are, have their own pet fluids, a number of which are shipped from the other end of the world.

WHEREVER there is a collection of rare and beautiful things, you also have souvenir hunters, and, worse still, vandals and thieves. Curators have long since learned to put everything they possibly can under glass.

A group of 15th-century figures in bronze, eighteen inches high, and weighing well over ten pounds, disappears. It is a cumbersome

piece with feather-edges and a finish that will easily chip. These obstacles do not deter the thief. Once a piece is missing, the police are notified. In nine cases out of ten, thieves are apprehended, but in the meantime the museum must meet its obligations in displaying what it claims to display. Arrangements are set on foot for a reproduction to be made. Obviously, it is difficult to replace an extremely rare piece with an undetectable reproduction, but the workshop can and does manufacture at short notice such things as bronzes, Dresden figurines, and old weapons. Dependent on what the subject is, of course, the replacing of an exhibit may take time, yet when it is completed the most well-versed collector is puzzled. The fact that these reproductions are made with only photographs and drawings as guides simply goes to show the high degree of skill involved.

Some few weeks ago a model of a galleon carved out of bone was missing. The problem of reproducing it was almost overwhelming because of one single thing. In England large beef-bones are hard to find. After several conferences, at which one school suggested that a plastic model, properly disguised, would do just as well, the older craftsmen said that the museum had to have the real thing or nothing at all. Several men and women set out to tour London in a search for a suitable bone. The hunt took some days, but at last a bewildered suburban butcher received three-pence for a piece of bone from which he had just cut week-end joints for some waiting housewives. The model is now on view, and cannot be distinguished from the missing original.

In some respects the craftsmen who serve London's museums are a dying race. Nowadays, when the accent is on mass production and stereotyped design, few men and women are able to combine the high degree of technical skill and love of old things necessary for the work. Those who do are determined not to allow their trades to die. That young man over there in the corner, one of the few ivory-carvers out of the East, will certainly recruit his son or daughter when the time comes. Quite often you meet fathers and sons, mothers and daughters, working side by side, and a happy band they are. Is it far-fetched to suggest that we may soon see a revival of the ancient guild-system, with the museum craftsmen forming a nucleus for other dying trades?

The Churinga Charm

BRYAN RUSSELL

TO Emslie the gibber-fields were strange and unreal, unlike any flat country he had ever seen before. The thick tangled jungle masses of New Guinea, the mirror blue waters of the Tasman, the green patterned pastures of the northern New South Wales coast—these he had seen from the air many times, and marvelled at their continual difference. Never had he witnessed the absolute dreariness and sameness of the stony empty wastes scudding beneath him now. This was the Dead Heart of Australia, country of dust and dryness.

Emslie put up a hand to adjust his goggles and leaned to the cockpit's side. In the backward flow of the ground the red sandstone hills scattered in the midday glare were like small crumpled folds in a huge smooth velvet cloth. All was bare, and there was no movement, no sign of life anywhere. Pity any poor devil left stranded down there. . . .

With relief, Emslie swung his gaze from the dreary vista of bleak earth-crust below him. Once he delivered the Tiger Moth to the Alice drome he would be glad to get back to Adelaide. No terrifying deadness there, but easy flying over a well-ordered city and its suburbs. Unconsciously he turned again to watch his port wing moving steadily, monotonously, across the even plain of the gibber-fields. It was then that he felt, rather than heard, the change in the Moth's ancient engine. In a second the level skimming of the wings was shaken terribly. The engine coughed brokenly, then everything was silent—silent but for the whistling of the wind against the dead propeller and the eerie sound of the plane's glide.

As the Moth began to dive, Emslie's mind was shocked to realisation of what this meant. He would have to crash-land in the stony arid desert. Anxiously he looked over the

cockpit at the ground spinning underneath him. Everywhere it had an easy flatness. Perhaps he could make it.

Down and down. Emslie felt his hands tighten about the stick, felt the aircraft shudder and flatten out as he pressed with everything he had on the rudder-bar. Now the speed of the plane was dropping, but the evenly swaying earth was beginning to spin up towards him furiously, its rocky surface showing clearly in patterns of light and shadow, of sandstone and scrawny mulga brush.

At the first bumping contact of the wheels Emslie knew the plane was going to go over, nose foremost. A moment, and he was thrown violently forward. A moment, and he seemed to black out, then was still, leaning heavily on the dashboard, his shocked eyes staring past the bent and smashed engine-cowling to the stony gibber-ground in front of him.

Gently Emslie eased himself back against the seat. There was no pain. He was not hurt. He fumbled at the pin on his safety-strap and, freeing himself, jumped from the cockpit. From the plane's nose he caught the smell of spilt petrol and, stumbling, ran from the wreckage. He had gone only a few yards when the plane exploded behind him in a flash of burning light. He watched the flames eating into the frail fuselage and along the crumpled wings. If he had still been in there . . . He shuddered and held up his arm to shield the glare.

The first seconds of numb thankfulness gone, Emslie now felt a bewildering uncertainty take possession of his mind and he cursed the luck that had forced him down away from the Overland Telegraph line. He was alive, but what was he to do? He had no map, no compass, neither food nor water. No use staying by the burnt-out plane. The

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only thing to do was to get moving on foot, make for Charlotte Waters to the north. The cattle-station could not be far.

Emslie looked around him at the desolate and suddenly frightening spread of the gibber-fields. It was dry, dusty plain-country, gently undulating with a myriad of purple-brown stones worn smooth and shiny by the ceaseless action of wind-borne sand-grains. The only vegetation was the monotonous mulga and giddea scrub, usually a dull olive-green, but here in the desert a bluish-grey like the salt-bush or sage-plant. To Emslie the bleakness of it all was discouraging as nothing he knew had ever been. With a last look at the black skeleton of the Moth, he started to walk. He was on his own, in the Dead Heart.

HHEAT, searing, blistering, stinging heat. For what seemed like a million soul-destroying hours it hounded Emslie in his trek northwards. Savagely it scorched and stabbed at him as wildly he staggered across the small loamy flats, struggling past thin lines of mulga trees towards the groups of tangled giddea brush lining the straggling creek-beds that wandered from the hills to lose themselves despairingly in the bare stones.

[7] Noonday blaze turned to fiery afternoon, and on Emslie stumbled, over dreary parched inclines, between low-lying, flat-topped hills, for ever haunted by the blinding glare. At sundown the hills looked afire, their summits burning red as the sun sank into desolation. At night, the stars were brilliant, the east wind bitter. Then dawn, and the heat again.

[8] Still without sight of water, Emslie could not turn back. With the sun a haze of seething red clouded with sand-dust, he pressed deeper into the gibber-fields, gradually feeling his feet become leaden, his throat parched and unbearably sore. At dusk he fell exhausted into a clay-pan that in the wet season would be a shining pool holding precious inches of water. Now it was an empty hole, its clayey surface broken into curled flakes that glistened dryly in the fading sunlight. Searching feverishly around its borders, all Emslie found was withered shrubs, patches of dead leaves, and the hard wooden spore-cases of the nardoo plant.

[9] In the dim light of the next piccaninny dawn Emslie started awake, already conscious of the oppressive heat to come. A moment later the sun burned overhead, an angry ball

in the cloudless sky. All day the heat-haze danced over the glaring gibbers.

NEARLY eighty miles to the south of Emslie's burnt-out plane the manager of a lonely cattle-station ran from the comforting cool of the house verandah into the sparkling noonday, shouting for his head stock-boy. 'Jacky! Get the boys ready. Word from the Alice!'

'What's up, boss?'

'There's a plane down somewhere near the line. We're to search the whole damn country till we find it. Get going now.'

'Righto, boss.'

'Someone lost, Jim?'

'A plane last seen north of Oodnadatta. Was headed for the Alice.'

'If he's a new'un he'll be lucky if he lasts in this heat. I haven't heard of water from anyone up that way this year.'

EMSLIE passed a tuft of coarse yellow grass withered and bleached as the earth around it. He knew that he was soon going to die. All that lay around him still was the grubby brown of the gibber-fields stretching to the horizon. Of other colour there was little. A pink convolvulus, a purple vetch, the bright-yellow flowers of a tribulus, and here and there clusters of white everlastings. These were the only colours Emslie had seen for two days, and to his tired eyes and mind they were not abundant enough to do more than emphasise the drabness of everything else. There was not a sign of water.

He stumbled and kicked at a loose pebble lying near his feet. Toward the horizon, shimmering and indistinct, a looming line of flat-topped hills seemed to offer his last chance of survival. He would make for them and from their height see to the north what lay ahead. If there was nothing, if there was no straggle of green swamp-gums, no tall acacias signifying a creek-bed, he would rest and wait for the night and whatever it brought.

As he walked, Emslie could not force his eyes from the hills. Slowly his weary brain began to liken them to relics of the giant Pyramids. Each separate mound he saw had the same almost perpendicular escarpment, beneath which shaly rock sloped away to a broad base, and each thin capping of Desert Sandstone, he knew, marked the old level of

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the central continent. The hills filled Emslie with an acute awareness of his own minuteness beside them. Theirs was the semblance of having been lost and forgotten like some huge derelicts in a timeless land.

Emslie felt his boots strike hard on the small stones which had broken from the hillsides and become smoothly polished by the wind-blown sand. Through the years the stones had come to lie closer and closer to one another, forming at last an almost tessellated pavement covering the whole wide dreary gibber-fields.

Emslie's stumbling march came to a slow halt. A few feet in front of him, by the side of a withered giddea shrub, was a curious heap of stones, large irregular boulders that bore no resemblance to the little polished pebbles of the gibber-field. He moved slowly towards them. It was clear that the pile had been fashioned by human hands, more likely aborigine than white, but human nevertheless. But when, and for what purpose? For a moment Emslie stood before the heap, possessed by a weird feeling that he should not tamper with it in any way. Then he bent and with an effort pushed the top stones roughly from the pile.

Within the circle of heavy boulders there was a hollow edifice, and in the darkness Emslie could see a musty collection of flat wooden slabs. He knelt and gingerly drew one of them out into the glaring sunlight. Brown-grey with age, it was about nine inches long, flat on one side and slightly convex on the other, and marked with a crudely ornamental design.

Emslie drew out the other pieces. They were all about the same size, though each had different markings. A few were broken at one end and had part of their design erased, as if worn by much rubbing and handling. Emslie threw the slabs back into the hollow with an expression of weary disgust. There was nothing of value in the whole pile.

He picked up a boulder and with difficulty laid it in position across the mound. Then he hesitated while the heat bore down on his aching shoulders. Perhaps if he took one of the wooden slabs with him it might be of some aid if he ever met with a wandering tribe of blacks. Perhaps, he thought with a wry smile, it might even act as a good-luck charm on his long desert trek.

He bent again and, reaching his burning fingers inside the hollow, groped for the small-

est of the pieces. It was only about six inches long and was completely covered with waving dotted lines. Emslie rested a hand on the pile to steady himself, then stood up and slipped the slab into his trouser-pocket, sceptically patting the thing for luck.

Once more he started on his tortuous walk towards the flat-topped hills. It was hard going now and the quartzite rocks beneath his feet were cutting and stabbing his dusty boots with every stumbling step he took. He was finding it difficult, too, to keep his swollen lips together, and when he took deep, gulping breaths between them it was as if he was sucking in scalding air on to his bloated tongue. In his wandering mind, tormented by his thirst-racked mouth, the hills had become huge vats within whose bellies were heaped beyond measure floods of the crystal-cool water for which he craved.

'GOOD work, Jacky. You're sure this is his trail?'

'We've got him, now, boss.'

'Anyone else out after the plane, Jim?'

'Not that I know of.'

'There're sure to be. Maybe someone will get to him before we do.'

'Yeah. And maybe he'll walk to a station all by himself.'

ON and on. Relentlessly Emslie trudged the hellish stony wastes, his body paining with thirst. Gradually his uneven pace slowed to a shuffle and, as he lurched across the gibbers, his swollen mouth awkwardly open, his feet slipping on the rounded pebbles, he became oppressed by a penetrating loneliness, a feeling of solitude that was at once fearful and vastly terrifying to him. If only they would send out a party.

Emslie paused and gazed about him. Away to the left he could make out a scudding roly-poly, a great prickly bush a yard in diameter, torn by its roots and flung away before the wind. A forlorn heavy silence hung down from the brazen sky. The feeling of isolation increased. Emslie swayed and with a trembling hand wiped the sweat from his forehead. He blinked into the sun and tore open the front of his khaki shirt. The heat the blinding glare...

Suddenly Emslie could not see. He staggered, sending up puffs of dust with his

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floundering boots. The gibber-fields were revolving crazily around his feet, the bushes reeling and rolling madly away. Below him appeared a hypnotic pit of darkness, and Emslie knew that he was going to topple into it and that nothing could stop him. The last thing he remembered before his knees buckled and he fell was an intense desire to lie on the ground, to sleep with his face in the dark coolness.

When he awoke he could not think for a moment what had happened to him. In his ears was a low warbling sound, which at first he took to be a plover's call. Resting his head on one arm he listened intently, then looked up.

A girl sat on the sand a few yards from him, humming softly to herself. Her bare legs were tucked under her and she wore a rough close-fitting dress cut low to her breasts and reaching to her knees. Her hair was loose and fell in wavy clouds over her dark-tanned shoulders.

In the few startled seconds before he opened his tortured lips to call out, Emslie gazed incredulously at her. Then, at his choked cry she moved her head and smiled at him with a look of recognition and pleasure. Her face was of incredible loveliness. Emslie raised himself on one elbow and parted his parched swollen lips again. 'Water . . .'

The girl rose from her place and with a grace that Emslie had never before seen in a woman came towards him. In an instant of bewildered thought she reminded him of an exquisite, delicately-shaped butterfly. He struggled to rise, but found that he was too weak to stand unaided. The girl went down on one knee by his side and, placing her arms under his own, helped him to a comfortable sitting position. The touch of her arms against his body stirred something that had remained unkindled in Emslie during all his lonely pacing, but as his questions surged within him he found his cruelly blistered mouth and leaden tongue would form no words to frame them. The girl put a hand upon his lips, motioning him to be silent.

'Be quiet now. I let you sleep. You will soon have water. You will soon be rested and cared for.' She smiled. 'Can you walk? It is not far, and I will help you.'

The girl slipped one arm around his waist and Emslie got to his feet with difficulty. Then, with her other arm guiding him, the girl began walking slowly through the scrub towards the giant flat-topped hills. Emslie

kept moving beside her as best he could, slipping and tripping amongst the rocks and scraggy undergrowth.

His only thought now was for water, and once when he slithered and fell a dreadful obsession seized him that he was not going to make it. As the girl knelt beside him holding him, all the agony and anxiety quietened within him and he was possessed with an incredible sense of relief. He was found. He was safe.

To Emslie death at that moment was far away. Now he would live, and not die. He was found. He felt a great happiness—did this girl realise what she had done for him? Leaning against her he moved his arm easily around her slender body and smiled gratefully with his sore, burning lips.

The girl glanced at him, but only for a instant. Then her eyes were again veiled under her long, dark lashes. Emslie tried to ignore the meaning he saw in her glance, tried to repel the sudden hungry desire he felt struggling within him and forced his mind away from it.

He remembered the strange wooden slab he had taken from the boulder pile. Drawing it from his pocket he held it out to the girl. 'This has certainly brought me good luck,' he whispered. 'I picked it up in a boulder pile back there. What do you think it is?' At his words the girl turned her face close to his, and to Emslie time and suffering were suddenly nothing. So near to him, the curving fullness of her lips was irresistible. He bent and pressed them to his own.

The girl did not shrink from his touch, and bending hungrily Emslie kissed her lips again and again. When he drew back, the girl remained resting in his arms, her eyes now lustrous and passionate. Her small hand moved and caressed his wan cheek, then she passed her arm around his neck and drew his head towards hers. Emslie could hear her quickened breathing and against his face could feel the silken mist of her hair. To his own parched lips the sweetness of the girl's was life-giving.

Presently she looked up at Emslie's face and her eyes became hazed with a troubled compassion. 'You have suffered,' she whispered. 'We must go. Come, you are rested now.'

Slipping from his arms, she stood before him. Emslie staggered clumsily to his feet and together they moved slowly on. The girl did not speak again until they reached the

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foot of the first great flat-topped hill. Then with a reassuring smile she waved towards the summit. 'Just a little further now.'

Beckoning him to follow, she began the ascent. Behind her, Emslie's steps were uncertain. He watched the girl flitting easily in front of him. It seemed familiar ground to her and she found her way up the jagged rocky slope with a sureness and swiftness that surprised him. Who was she, where did she come from, how had she found him, what was such beauty doing in the lonely arid desert, how near were they to water now? Thoughts gave the toiling Emslie no rest as he climbed wearily.

At last, with torn and bloody hands he pulled himself to the peak and gazed out over the crumbling sandstone ledge. For a moment the sun blinded him with its glare and he could see nothing but the shimmering gibber-fields and hazy patches of mulga. Then his heart grew wild as his bloodshot eyes caught the line of something else, something green and tall stretching on the horizon beyond.

A crazy excitement tugged at him. Gum-trees! Green gum-trees and acacias, the mark of all river-courses! Water at last! Emslie swayed and slithered from the red sandstone hill, plunging madly down the slope, his feet sliding, the sound of his boots hard and metallic on the shaly rock. When he pitched forward to the level ground it was all he could do to keep himself upright. Water! Water!

'WATER, water—that's all he needs, Jim, until we find him. Just a little and he can keep going. Without it . . .'

'Don't worry, boss. We find him quick-time now.'

'All right, Jacky. Keep 'em going. . . '

HOW long Emslie ran rushing and stumbling towards the distant line of swamp-gums, bruising and cutting his legs on bushes and boulders he never saw, falling to struggle up and on again, he could not tell. The one thing that gave him energy to keep going was the vision of water. The rest of the world was unreal, unthought of. Water—that was all now.

Dashing forward, crashing blindly through the short scrub, past patches of dark mulga and swamp-gum, Emslie could see the ground

was more uneven and sloping. Straight ahead he was able to make out some sort of ravine hidden by the thickly-clumped gums. Forced to a scrambling walk he brushed through a thicket, his heart pounding, his legs trembling under him. A few steps and he stood on the edge of a deep bank. To the north a wide gap pierced the middle of a range of low-lying hills. At his side was a broad flat covered with thin cassia scrub and dotted with red-gums, their white trunks shining in the sun. Beneath him lay the gleaming course of a river.

To Emslie the river's surface reflected the sun almost unnaturally. And in a second that was the end of the world Emslie understood. The river held no water at all. The reflection was from the river's white dazzling sand-bed. Emslie fell to the ground sobbing. His whole body was shaking violently when, in an isolated moment from his agony, he remembered the girl and looked around for her. She was nowhere.

The realisation shocked Emslie to sanity, and suddenly, calmly, he knew she had never been with him, had never caressed his cheeks, never quenched his thirst with her sweet, sweet lips. She had been a waking vision, a hallucination, a phantom, merely one of the many shapes sun-sickness and insanity would take to anyone lost and without food in the glaring, waterless gibber-fields.

His brain a whirlpool of torment, Emslie stared listlessly at the glimmering white sand below him. In his ear a tortured voice began whispering: 'Yes, you are going mad. Soon you will rush howling into the night across the ageless stone, until at last you drop and die. Now you will never escape. Your mind will become so blurred and mixed with anxiety and phantom fancies that this place will become a raging hell in which for ever you are imprisoned to struggle against unimaginable obstacles under a sun that blinds your sight and destroys your being.'

'Never again will you see cool fern gullies, green shadows. Never again will your body know the delight of blue foaming waters. You do not belong to this harsh, cruel land. Only the black man can survive here, obtaining food and water in abundance where you die of thirst. . . .'

The mocking whisper trailed off and, uttering an anguished cry, Emslie threw himself on to the sand, his arms outstretched in front of him. In his hand he felt something hard.

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It was the wooden slab he had taken from the aborigines' stone mound. He looked at it for a moment, then threw it savagely from him into the dense scrub below.

'NO good, boss. Track him finish right out.'

'Right out, Jacky? Are you sure? Get the horses on ahead and see if you can pick it up again there.'

'Okay, boss. Maybe . . .'

FOR a long time Emslie lay still. Only once did he stir. That was at sunrise, when he raised himself half-delirious to stare at the strangely beautiful country around him. To the west the sky had become blended with a rich glow. Against it the mulga branches stood out sharp and thin and all the shrubs and tussocks of grass were deep purple in its light.

What Emslie saw to the east was different again. There a sky of cold steel-blue melted into salmon-pink, and the white blue of the saltbushes was like snow traced against the now warm, rich brown of the stretching gibber-fields. Gradually the light faded and the outlines of the bush became indistinct, indistinct as it had been six hours before, shimmering in the sweltering waves of noon-day heat. One after another the stars rose in the sky, and seeing them in his delirium Emslie lay down to die.

'I SUPPOSE you know how lucky you were, old man, to be found by those wandering natives this morning. The search-party they sent out was way off your track.'

From his rough verandah bed Emslie looked up wryly at the Millawa Waters station-manager. He paused as his tongue sought for the words he wanted. 'I'm not superstitious, but I've a feeling that old aborigine slab I found had something to do with it. Pity I threw it away last night.'

The Millawa Waters man leaned forward interestedly. 'What sort of slab was it?' he asked.

'Well, it was marked with queer designs and was about so long.'

As Emslie gestured with his bandaged hands his companion stared incredulously. 'My friend, you don't know how lucky you are. That was a churinga. To the tribe who brought you in, especially, churingas are sacred objects, with which, after death, the spirit of the owner appearing in dreams is intimately associated.'

'A spirit—appearing in dreams?'

'Yes. But never mind that. What concerns you is that these churingas are so sacred that even natives themselves who have disclosed their secret hiding-place to whites have been killed unmercifully. So, my friend, if your aborigine rescuers had found that small wooden slab on you, you would probably not have escaped them alive. A strange thing, a churinga.'

Glenluce

(*Vallis Lucis*—'Valley of Light')

*Austere the elders of my land,
And grey the granite of her hills—
Austere and grey, the martyrs lie,
Beneath the granite and the sand.*

*Bereft the Abbey of her light,
And still the voices of the dead—
Bereft and still, the holy place,
Beneath the shadow of our night.*

*Unhurt the valley by her loss,
Unlost, the courage of her men—
Unhurt, unlost, the dauntless hearts,
Beneath the heather and the moss!*

C. A. MCFADYEAN.

The Ideal Shrub-Border

MOST people are looking for a garden or border which will take very little tending and yet will retain a beautiful neat appearance month after month. The old-fashioned shrub-borders were largely composed of rather dark and dismal specimens, like euonymus, aucuba, and box. It is only comparatively recently that gardeners have taken increasing interest in flowering shrubs as a whole, but even when flowering shrubs are used, it is quite a common thing to find a border completely spoilt because of one or two rampageous shrubs which have taken up more and more room every year.

Not only is it important to choose the shrubs with the utmost care, but the land itself should be prepared properly also. There's no need to dig to the depth of 2 feet or more, as some books suggest—ordinary bastard trenching is quite sufficient. When this operation is going on, it should be possible to incorporate well-composted vegetable refuse at the rate of about a bucketful to the square yard. If the land is in good heart, it is better to apply the compost as a top-dressing after planting, this making it much easier to plant firmly.

Normally, one will plant early in November, because then the soil is still warm and the newly-planted shrubs get away quickly. Plant early and there is rapid recovery. Those who insist on having evergreens should preferably move them in August or September. When the specimens arrive, soak the roots in water for a few hours and then dig holes large enough to allow of the roots of the shrubs being spread out horizontally and deep enough for their stems to be at about the same level as in the nursery. The soil mark gives the indication of this. If any roots have been injured during lifting, shorten them. Next May it may be necessary to water liberally if the weather is very dry and to syringe the evergreens over twice or thrice a week.

Don't be tempted to plant closer than the space the shrubs will eventually require. Nurserymen usually advise planting twice as thickly and removing at the end of five or six years every other plant, but in practice this

thinning out never seems to be done. It is possible to cover up the bare spaces during the first two or three years by putting in annuals or bulbs. Plant so that colour is assured all the year round, and on the whole choose the taller types for the back of the border and the dwarfier ones for the front, but if the border is a longish one have a taller shrub towards the front every now and then to break the monotony of the contour.

Now for a list of shrubs which are not only compact but also attractive. For those who have lime-free soils there is much to be said for the azaleas and ericas. Among the latter, all the carneas are suitable, as are the cinereas and vaganses. There are a number of barberries, and particularly useful are the hybrids of *Berberis stenophylla*, which are delightful both in summer and autumn. I would like to include one or two of the rock-roses, like Betty Taudevin. If you plant *Skimmia japonica* you must have a shrub of each sex, and then you will get not only the scented blossoms but the vivid scarlet berries as well. There's a nice dwarf cotoneaster called congesta, and there are the very early flowering daphnes, both pink and white. I am especially fond of the dwarf lavender known as Munstead and the three blue-flowered caryopterises. There are two or three cytisuses that might be included, for instance, *C. decumbens*, which only grows 5 inches high, and *C. ardoini*, which is a bright yellow and only 6 inches tall. There are many baby genistas that are compact and do well for the front of the border, and some shrubby spiraeas, such as *S. bullata*, a pink which grows 15 inches tall, and a white *S. media*, which is as high as 4 feet as a rule. Two unusual shrubs are *Margyri-carpus setosus*, which has white spiky flowers and only grows 1 foot high, and *Pachysandra terminalis*, which reaches the same height and bears most interesting pear-like fruits.

I shall be glad to help readers with their gardening problems. Write to me through the Editor, kindly enclosing a stamped addressed envelope for the reply.

W. E. SHEWELL-COOPER, M.B.E., N.D.H.

Science at Your Service

A FACTORY SAFETY-DEVICE

ALTHOUGH the power driving a factory machine has been switched off, moving parts still possess considerable momentum and will continue to revolve or operate until this has been lost. Accidents can easily occur if guards are removed immediately the 'on-or-off' switch has been pressed. To minimise this danger, an engineering firm has just designed and marketed an automatic delay-bolt. This consists of a bolt-unit and bolt-keeper. The former is fitted to the fixed portion of a guard for machinery, while the latter is fitted to the movable part of the guard. The bolt-unit contains the switch for the machine and a delay mechanism. The result is that when the bolt-switch is operated the machine enclosed within the guard is cut off from power; but the bolt itself is not at once withdrawn, and in any case its withdrawal is entirely automatic and controlled by the delay mechanism. The period of delay can be set at any point between 4 and 77 seconds according to the average time taken for the machine to become safely non-moving after the power cut-off. This would appear to be a safety-device of very wide application in industry.

MODERN FLOORING-TILES

Owing to timber scarcity, ground-floors of houses and buildings often have to be made of concrete. Among various surfacing materials which may be laid upon a concrete base, tiles made of inert asbestos and ground-rock fillers and bound with asphalt or resins offer a number of advantages. They are not entirely new, as this type of tile, now manufactured in Britain, has been successfully in use in America for twenty years and some floors were laid with these tiles in this country as long ago as 1938. The composition is unaffected by alkaline moisture, so that tiles of this kind are quite suitable for laying on concrete in direct contact with earth, and, except in very wet conditions, damp-proofing is not necessary. As a flooring-material, the

tiles are quiet to walk on, and non-slip. They stand up to hard wear and have proved exceptionally economical when used in housing schemes or laid in buildings such as schools, hospitals, and government offices. The cost of the tiles themselves is less than that of good linoleum per square yard. The manufacturers insist that the actual laying should be carried out only by their trained staff. Tiles are available in a wide range of plain or marbled colours as fadeless pigments are incorporated in the composition. The material is non-absorbent, so that staining does not readily occur. The surface can be polished to give a specially high finish, but normal sweeping and washing will maintain a fresh appearance. In a recent London metropolitan borough contract this modern tiling was selected for all flooring in five blocks of flats.

A GAS-HEATED WATER-CIRCULATOR

A thermostatically-controlled water-heating unit employing gas combines the features of both a rapid and a storage heater. The Regulo control is used to set the temperature to which the water is to be heated; when this temperature is attained, the gas automatically cuts down. But there is, in addition, what is described as an 'economy valve,' and this is perhaps the most novel feature of the appliance. This valve operates in two positions and controls the quantity of water to be heated. The first position gives rapid heating and will maintain a supply of from three to five gallons of hot water; while the second position meets the hot-bath condition when a larger volume of hot water is needed. This hot-water circulator can be used as an auxiliary to an existing solid-fuel hot-water system, or it can be installed as the only household means of hot-water supply.

The circulator, only 19½ inches high, has a neat appearance, cylindrical rather than rectangular, in contrast to many modern units. It is finished in white porcelain-enamel. It has been designed and manufactured by a firm whose name is in the very front rank of makers of gas appliances.

SCIENCE AT YOUR SERVICE

ATOMIC-PILE ISOTOPES

As is now widely known, one of the peaceful products of man's ability to disrupt the atom is the preparation of radioactive isotopes of many elements, that is to say, forms of these elements which behave quite normally as chemical substances but which emit radiation of the kind associated with radium and uranium. These isotopes have a limited radioactive life and this varies from days to months from element to element; radioactivity has been conferred upon them by treatment in an atomic pile. Their great use in research is that their movements throughout any changes in which they take part can be followed by measuring the radioactive emission. It is as if certain atoms have been labelled. For example, fertilisers have been made from radioactive phosphorus and it has been possible to find out how much phosphate growing plants take up from the soil and how much from the actual fertiliser dressing. Formerly, there was no way by which soil and fertiliser phosphates could be distinguished once the plant had acquired this plant-food. In metallurgical research, the movement and distribution of trace quantities of elements in an alloy can be followed. Indeed, the research possibilities of these isotopes are almost unlimited.

Isotopes were produced in America and Canada from the wartime atomic energy centres, and in the last two years the British atomic pile at Harwell has started to produce supplies for research. One big problem is the transport of isotopes. They may have to be encased in heavy lead containers to prevent damage or health dangers from their radiation during transit. This has handicapped their transport by air. Also, there is a wise regulation in Britain that isotopes with more than a minimum radiation emission must be kept at least three feet away from human beings or livestock during transport, and while this condition can be met fairly easily in road or rail travel it is a further complication when air transport is used. An ingenious solution to this problem has been found. The isotopes are being carried in felt-lined compartments let into the wing-tips; within this compartment the supply of research isotopic material is carried in a small metal cylinder which can be put into position and removed by a 3-foot-long metal rod. By this device isotopes urgently needed for research in the Commonwealth can be quickly sent from Britain.

CLOTHES-BOILER INTO WASHING-MACHINE

An entirely new appliance is claimed to convert any 8 or 10 gallon clothes-boiler of the traditional type into an automatic washing-machine. The appliance has no beaters or revolving vanes. It resembles an inverted mushroom and is placed in the boiler with the domed base resting on the bottom. Clothes are then packed round the vertical stem, which is hollow. During the washing procedure hot water is constantly forced up from the domed base and through the stem, where it emerges by overflowing from the top and then passes through the clothes. This movement of hot water through the clothes proceeds continuously. The appliance is made of tinned copper. Its price is remarkably low, and, even if boilers fitted with it are still only substitutes for a modern automatic washing-machine, the fact remains that this appliance can cheaply and readily introduce enormous improvement and labour-saving into the age-old task of clothes-washing in a boiler.

EXIT THE LAUNDRY-MARK?

A new British invention may well revolutionise the marking system which has long been in use by laundries. The value of this development will be appreciated if the troublesome nature of the present method is first realised. Permanent marks have to be placed upon articles of clothing. People who move frequently or change laundries frequently accumulate a number of such marks. A mark-register or control-system must be operated at the laundry. There, too, labour must be devoted to looking for laundry-marks and sorting out confusions caused by clothes carrying several marks. In any case, the initial marking is often a hand-operation. All these facts are arguments against the present method, but until recently there has not been an alternative.

Now, however, a well-known industrial chemist has designed a non-permanent mark, a tear-off label which will remain attached to garments throughout washing operations but which can finally be pulled off by hand without damage to the fabric. The tab material is applied to garments by a special machine. This material is a fabric made from staple threads (e.g. cotton, rayon, etc.) with thermoplastic threads interwoven. In the machine a solvent and heat treatment is given to the tab and, as a result, the thermo-plastic threads are

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dissolved and they thus make a series of pin-point adhesions to the fabric of the garment. These adhesions persist during all normal laundering processes, but the tab, when fixed, is left with a small finger-grip piece unattached, and by pulling this the tab is easily removed after laundering the garment.

While the basis of this development is the chemical idea, its practical application in laundries seems assured by the excellence of the tab-marking machine which has been designed. This is compact and simple to operate. It cuts the marking-tab from reels, it prints the mark on the tab, and it sticks the tab firmly on. It marks one article every 4 to 5 seconds and it can also, if required, count the number of articles marked. Various-coloured tabs can be used. Individual marks can be given to each garment from the numbering wheels of the machine. If advantage is taken of the different tab colours available, individual colours can be chosen for days or localities of collection and simple numbering systems can distinguish each customer's consignment of clothes.

Simple and systematic control over one of the laundry's most cumbersome and troublesome tasks seems to have been achieved by this combination of chemical and machine-design ingenuity. Furthermore, it is readily conceivable that there are other industrial operations in which this type of tag-marking may find application.

A MINIATURE KITCHEN-BOILER

A novel kitchen appliance for boiling small amounts of water or beverages is so simple in conception that it is surprising that it has not been thought of sooner. The 'boiler' is a pyrex-glass tumbler. A 460-watt heating-element attached to a chrome cover for the tumbler is the source of heat. The element has, of course, the usual flex connection for plugging-in at a point.

When only half-pint quantities of liquid require heating, this neat appliance will be both effective and economical. It will boil the contents of the tumbler sixty-five times for a consumption of 1 unit of electricity. The appliance can also be used for boiling eggs. A ring attachment to the element enables two normal-sized eggs to be safely held in the tumbler. The price of this device is very reasonable, and it should be of considerable interest to people who live alone in small flats and to people who frequently travel.

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TELEVISION WITHOUT ENTERTAINMENT

Most of us regard television as a new medium of entertainment exclusively aimed at mankind's hours of leisure. In the United States, however, television is entering working hours as well, and the social-cum-industrial consequences may be far-reaching. A relatively cheap television system is now available for installation in factories. It enables the manager, or some central office, to view any part of the factory often. Cameras can be kept in fixed positions in any room or at any spot where repeated viewing is considered necessary, and the 'picture signals' can be transmitted through a 500-feet-long wire. Cameras may actually be focused by a master control-unit in the central office. The control-box is said to be no bigger than an ordinary suitcase. This system was recently demonstrated at one of New York's city prisons and provided frequent office observation of the prisoners. It is also suggested that it will be of great value in schools, enabling the headmaster or principal to keep constant watch upon the various classrooms.

One cannot help feeling that the choice of a prison for one of the early demonstrations is itself an ironic comment upon this development. Assuredly it is unlikely to appeal to the British temperament if introduced into factories here. It might act as a check upon the malingerer, but this benefit may well be offset by the psychological effect upon the normal worker whose sense of freedom would be almost certainly disturbed by the feeling of being watched invisibly. This is indeed television for a dour, utilitarian purpose. If the development of a small and low-cost unit is a great technical achievement, one must doubt whether in principle it is a worthy social innovation.

TO CORRESPONDENTS who wish fuller information regarding new inventions, publications, etc. mentioned here, addresses will be furnished, when possible, if (and only if) a stamped addressed envelope or postcard for a reply be sent to the Editor, *Chambers's Journal*, 11 Thistle Street, Edinburgh. To avoid delays, requests of this kind from correspondents abroad will be forwarded to the manufacturer or agent if stamps, postal orders, or imperial or international reply coupons are enclosed for the purpose. The issue of the *Journal* and the heading of the paragraph in which the object of inquiry is described should be given in order to facilitate reference.

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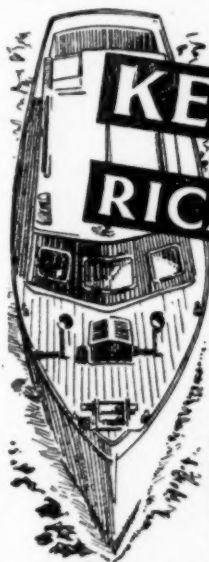
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